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ABSTRACT

Proceedings of a 1980 conference on freedom and control in Australian higher education are presented in seven parts: (1) government "control" of higher education; (2) freedom to learn; (3) accreditation, certification and the control of learning; (4) institutional constraints on freedom; (5) professional development of academic staff; (6) educational media; and (7) perspectives. Among the 34 papers are the following: "Quality and Equality in Education" (B. C. Teague); "Checks and Balances in a Federal System" (D. N. F. Dunbar); "Institutional Autonomy and State Co-ordination" (R. E. Parry); "Issues in Tertiary Teaching: The Use of Cognitive Models to Guide Teaching Method" (K. Mason); "Freedom to Learn: Designing Courses for Students Rather Than Teachers" (J. Powell); "Independent Study: A Viable Option" (L. Marshall); "Involving Students in Planning, Teaching and Evaluating Their Own Programmes" (M. F. Fogarty); "Undergraduate Medical Examinations: A Conflict of Interests" (G. I. Feletti); "Professional Accreditation" (E. Stokes); "Can the University Teach Environmental Studies?" (J. J. T. Evans); "Sources of Political Power in Academia" (B. Martin); "A Framework for Selection Educational Method in Work Organisations" (J. Martin); "Self Appraisal in Professional Development of Tertiary Teachers" (D. Boud); "Staff Development Workshops: Freedom and Control in Theory and Practice" (A. J. Dare); "Professional Development of Academic Staff: A Policy-Making Workshop" (B. W. Imrie and H. G. Murray); "Growth of Instructional Technology: Greater Freedom for the Learner?" (D. Unwin); "Effect of Packaged Learning Units on Students' Freedom to Learn" (D. Hlynka and P. Hurly); "Media Accountability: Keystone of the Freedom to Learn" (M. B. McLaren); "Freedom of Access to Learning Resources: The Challenge of Big Government and Big Business" (G. R. Brong); and "Student Learning Skills; Attitudes of Australian Academics in Universities and CAEs" (J. Bowden and J. Anwyl). (SW)

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Research and Development in Higher Education Volume 3

Papers presented at the sixth annual conference of the Higher Education Research and Development Society of Australasia on the theme of

Freedom and control in higher education

Australian National University, Canberra
3 — 6 May, 1980

Edited by
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HIGHER EDUCATION RESEARCH & DEVELOPMENT
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The general objective of HERDSA is to promote research and development in Higher Education. Membership of the Society is open to any person interested in that objective.

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Preface

The Sixth Annual Conference of the Higher Education Research and Development Society of Australasia (HERDSA) was held in Bruce Hall of the Australian National University from 3 - 6 May, 1980. As with other recent HERDSA Conferences, papers were sought which related to the conference theme, in this case "Freedom and Control in Higher Education".

In the months which preceded the conference Australian newspapers had featured many reports dealing with the complementary questions of freedom and control in education. Indeed, the amount of news space given to higher education indicates an increased public interest in higher education and in awareness of problems, many of which have been aggravated by the relatively sudden ending of a period of rapid expansion. Some other problems discussed at the conference can be traced to changes in student populations, such as an increased percentage of mature age students and a greater number of students who object to any form of restriction on their learning. Other problems have arisen in higher education, according to some conference speakers, as a result of new institutions or study programmes which challenge existing beliefs and practices in higher education.

By bringing together representatives of government and co-ordinating authorities, senior university and college administrators, lecturers and researchers, the conference organisers hoped not only to stimulate discussion on matters relating to the conference theme, but also to suggest ways that administrators, teachers, researchers and students in higher education might work together to provide opportunities for greater freedom in the pursuit of scholarship, a freedom which does not limit the rights of others.

Allen H. Miller
August, 1980

Acknowledgements

Many people contributed to the success of this conference; members of the organising committee (membership of which changed considerably during the planning period), staff of the Office for Research in Academic Methods at the ANU, invited speakers and those who presented papers or conducted workshops. Without the cooperation of the above people and the typists who prepared the papers for publication, the production of these conference proceedings would have taken much longer and been very much more expensive.

There are, however, three people whose contributions should be acknowledged publicly as their names do not appear elsewhere in this book. They are Bernice Anderson, the conference secretary who capably managed enrolments, negotiations with Bruce Hall and Ansett, and many other details of organisation; Merran Huntley, who re-typed a number of papers in order to meet our standards for publication; and my secretary Joan Rowe, who checked layouts, assisted with typing and negotiated with those responsible for the final production of the book.

Lastly I wish to thank members of the Graphic Design and Printing and Duplicating Services of this University for their advice and work on the cover design, title page and chapter headings, printing and binding of the book.

Allen H. Miller

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PART I

GOVERNMENT "CONTROL" OF HIGHER EDUCATION

1. Quality and equality in education
   B.C. Teague

2. Freedom and control in higher education
   W.G. Walker

3. Checks and balances in a federal system
   D.N.F. Dunbar

4. Institutional autonomy and state co-ordination
   R.E. Parry

INTRODUCTION TO PART I

All universities (and the majority of colleges) in Australia and New Zealand are public institutions in the sense that they were established by a government, they are open to all students who meet their academic admission requirements and they depend on government grants rather than student fees or private endowments for their major source of finance.

It is therefore to be expected that the governments which provide funds for higher education may wish to ensure that these funds are wisely spent, that certain sections of the community do not benefit at the expense of others and that government educational policies are implemented. In this opening section four people examine the possibilities of government control from contrasting perspectives.

A representative of the Australian Government, Senator Teague, first examines a government's efforts to ensure that in implementing its educational policy for the country as a whole, quality in education is not sacrificed in order to maintain an apparent equality of opportunity. Senator Teague sees any controls which come through government commissions or statutory authorities as necessary for maintaining this equality, but claims that these controls must be tempered with freedom of autonomous institutions to develop quality in their educational offerings.

Emeritus Professor Walker, from the perspective of one who has been able to examine public education from inside and outside the system, fears a certain loss of freedom to innovate as a direct result of increased reliance on governments for financial support. The presence of one or two private universities and a number of largely independent community colleges would, according to Professor Walker, be a stimulus to the whole system of higher education in Australia.

The move towards greater unionisation of academic staff is also seen by Professor Walker as a threat to academic freedom. Unsatisfactory management practices have led, he claims, to a breakdown in freedom of action on both sides. In the concluding section of the paper Professor Walker pleads for a greater recognition by the community of the vital role played by universities in maintaining academic freedom and for an acceptance of that role by the universities themselves.

One result of the Commonwealth Government in Australia assuming a major responsibility for financing tertiary education has been the need for a coordinating body which would examine the competing claims of institutions, sectors, states and regions and recommend to the government how its money should be allocated. As chairman of one of the three councils of the Tertiary Education Commission (TEC), Emeritus Professor Dunbar is able to describe how the Commission and its Councils operate. His paper deals with some problems arising from overlaps between the sectors, particularly between middle level technical courses offered in Colleges of Technical and Further Education (TAFE) and associate diploma courses in Colleges of Advanced Education (CAEs). Similar overlaps occur between degree courses at CAEs and universities, but the problems of overlap are greater in the former example due to differences in the methods of funding and administering CAEs and TAFE.

The balance between freedom and control is illustrated clearly by Professor Dunbar in the way the TEC receives submissions, makes recommendations and then on the basis of the government's provision of funds and stated policies. allocates funds to sectors, and, in some cases, institutions. Nevertheless within the limits laid down by the government and interpreted by the TEC, state coordinating authorities and ultimately the institutions themselves, have some freedom in the way funds are used. Professor Dunbar sees a clear need for tertiary institutions to retain these freedoms and deplores any arguments for certain universities to "be brought up to the national average". Such a degree of uniformity would result in a loss in quality.

Professor Dunbar also questions whether the number and type of courses in tertiary institutions should be influenced more by student demand as indicated by enrolments or as a response to predictions by manpower planners.

The final paper in this opening section examines some of the problems of coordination at the state level. R.E. Parry, with a close knowledge of coordinating authorities in two states and experience in all three sectors, notes a reduction in state control over tertiary curricula during the last decade and forecasts even greater freedom for CAEs and TAFE colleges. This freedom has nevertheless been tempered with strong control to reverse the earlier proliferation of CAEs, so that the number of institutions in this sector has been significantly reduced, thus strengthening the remaining institutions.

Amalgamations and talks of future mergers have, however, created a dilemma, according to Mr Parry. If relatively small CAEs are likely to achieve university status through absorption into nearby small universities, is it possible to deny the larger CAEs and Institutes of Technology this status? He therefore proposes that state authorities seriously consider the possibility of establishing multi-campus "State Universities" which offer comprehensive ranges of courses through their member institutions. This proposal has initiated considerable debate both during the conference where the paper was first delivered and in public correspondence in the press since that time. It illustrates the problems which must be faced by senior planners if tertiary education is to be made available to all who are qualified and interested enough to apply for entrance to tertiary studies.

Opening address to conference: Quality and equality in education

B.C. Teague

Mr Chairman and Members of the HERDSA Conference; Keynote Speakers, Professor Walker, Professor Dunbar, and Mr Parry. Also I address myself to visitors from the USA, Thailand and the UK. The New Zealanders I don't mention as you are already a part of HERDSA.

It is my pleasure this evening to address you on behalf of the Minister for Education, the Hon. Wal File, and, at your invitation, to officially open the Conference proceedings. My colleague, the Minister, apologises he is unable personally to attend due to his prior commitments.

For my own part, as a politician with a close interest in Education matters and as a former lecturer in History of Ideas, I recognise the importance of education research (the dangers of ivory-tower monographs notwithstanding) and I recognise the very real value this opportunity for mutual sharing and discussion that HERDSA, in a conference such as this, so significantly provides.

Equally, I say in passing that I know it is at this early stage of a conference that thoughts like Dr John Powell's article, "Conference Revisited" may flood back to your minds - but I will press on.

HERDSA, the Higher Education Research and Development Society of Australasia, is an association of university and college teachers, administrators and researchers who are interested in improving the quality of higher education.

As Rod Wellard's Development Committee reminds us, HERDSA is six years old and is at the stage of asking whether and where it may take a more activist approach.

QUALITY AND EQUALITY IN HIGHER EDUCATION

The balance between freedom and control in education is an important element in maintaining and improving quality of education. In my judgement "improving the quality of education" - in all the minutiae of structure and practical detail - is one of the two things that Education in the 1980s is all about. It is to this issue that the Williams Report and its useful recommendations are directly addressed.

The other issue for the 80s is equality of education. We need to give a fair go to the lowest achievers, the ones who do not have academic outcomes, the ones who have been described by Professor Karmel as the 20 to 40% least well served by our schools. The Prime Minister addressed himself to this problem in his January speech in Melbourne. Mr Fraser said,

> The advocates of universal education down through the years, have argued that education was the agent of equality. Now [in 1980], education's critics are arguing that the flaws of the system are such that education is raising barriers against young people's progress rather than eliminating them.
>
> Governments have provided resources; proper returns have not occurred. In fact, it is in recent times while colossal expenditure in education has been going on, that the values, direction and competence of the education system have been most severely questioned.
>
> People are rightly concerned that too much education is for the academically-minded, those with special talents. But those without academic ability are entitled to at least as much attention. I would argue, more. They are not getting it. People with academic preoccupations, inside or outside the education system [and I would add many of us here tonight] must understand their capacity to compound and frustrate a student's sense of failure when [non-basic and inappropriately academic] goals are pursued that cannot be reached.

'Improving the quality' and 'the getting of equality' - two issues for the 80s. Both draw upon the balance between freedom and control, that is freedom and control throughout the structure of our education system.

In more centralised New Zealand this balance may be less complex, but in Australia the balance between freedom and control needs to be established at different levels - institutional, sectoral, State, and Federal; and in different areas - teaching, research, and funding.

These divisions appear to be necessary but I must say, as an aside, that they are more pedestrian than the three divisions or subthemes of your HERDSA '79 Conference which were cast much more excitingly as the three pitfalls of 'tunnel vision', 'intellectualism' and 'progress dependence'.

I now refer to the legislative foundation for universities on the one hand and for colleges on the other - the two sectors in which may be found the major initiatives for higher education research. In this I do not disparage the Technical and Further Education sector in which some of the most significant developments in adult education will be

tested and applied - such developments as recurrent education, computer-assisted and modular learning, and the urgent area of upgrading TAFE-teacher methodology.

Universities

Australian universities are self-governing (autonomous) institutions established by Acts of Parliament. The 18 State universities have been established by State Acts and the Australian National University by Commonwealth Act. Generally speaking, the governing body (Senate or Council) is responsible for the management of the university's affairs, and in particular for its academic affairs, subject only to requirements specified in the enabling Act. These requirements generally include provision that statutes, by-laws or regulations made by the governing body require approval by the State Governor or Parliament, provision for annual audit of the university's accounts and for the preparation of annual reports for presentation to the Governor and/or Parliament.

Colleges of Advanced Education

Advanced education has been developed within State systems which are co-ordinated by State agencies. As with universities, most of the 69 colleges of advanced education in the States are established under State legislation while the Canberra College of Advanced Education is established under Commonwealth legislation. Some State colleges have been established by individual Acts of Parliament but in most States a large number of colleges have been established under 'umbrella' legislation. The legislation establishing colleges provides for the appointment of governing bodies (councils) which are charged with the general responsibility for the management of institutions. Some State co-ordinating authorities have certain powers in relation to the operation of colleges, e.g. the determination of staff establishments. The State legislation under which colleges are established provides the framework within which colleges offer courses and award diplomas and degrees. The courses are accredited by the State co-ordinating authorities and registered by the Australian Council on Awards in Advanced Education.

In my remarks so far I may have reminded some of you of institutional structures that are only too familiar. However, I am not sure whether I have yet met Robert Paddick's requirement of displaying personal value judgements so that as he put it, "they can be debated, substantiated and revised rather than remain private and untested".

Funding

Although the Commonwealth Government fully funds universities and colleges of advanced education it does so in order to assist the States to maintain the institutions which are established under their legislation. The Commonwealth seeks to safeguard the autonomy of these institutions, and respects the constitutional responsibility of the States by providing recurrent grants to individual institutions in the form of a 'block grant' for general purposes rather than in respect of specified lines of expenditure. Each institution is, then, responsible for subdividing its allocation in the way it considers best; subject only to broad conditions imposed by the Commonwealth. The funds are

made available through States grants legislation which also details the conditions. For example, recurrent grants are provided on the conditions that tuition fees (as defined) should not be charged and that statistical information and certified statements of expenditure should be provided to the Commission. Other categories of grants, for example, equipment grants, are subject to Commission approval.

The Government has, from 1979, re-introduced triennial recurrent funding with the funds for 1980 and 1981 fixed in real terms at the 1979 level. This forward commitment by the Government will enable universities and colleges of advanced education to plan during the 1979-81 triennium with certainty and develop forward plans for the 1982-84 triennium.

I think that when Dr Dave Boud in a recent HERDSA editorial referred to "negative growth" and to "real cuts" he overstated the present funding prospect. ("Steady-state" is still, I think, a fair description.) However, his reference to "close scrutiny" by peers and his question of HERDSA members: "How can you justify what you are doing?" are, I think, soberingly near the mark.

CO-ORDINATION IN HIGHER EDUCATION

Perhaps the most prickly and, even now, still debated innovation by the States has been the advent of umbrella-like State co-ordinating bodies. Their functions have been justified, and these functions, of course, directly bear upon the question of freedom and control.

State Co-ordination

Three States (Victoria, South Australia and Western Australia) have established Statutory authorities whose co-ordinating responsibilities include all three sectors of tertiary education. Tasmania has a non-statutory body which is also concerned with the three sectors but the Tasmanian Government has agreed that this should be replaced by a Statutory authority. The New South Wales Higher Education Board co-ordinates the universities and the advanced education sector. The Queensland Board of Advanced Education co-ordinates only advanced education within the State.

To refer to Robert Paddick again - he has suggested, as a foundation idea for the tertiary education institutions, the recent statement by Sir Frederick Dainton: "Any society that calls itself civilised must allow its best minds to follow their curiosity." I suggest that it is just this kind of freedom - civilised or not - which State co-ordinating bodies seek to overcome or discipline by the new controls. 'Following one's curiosity' still needs to be squared with the renewed and powerful present call for "accountability'.

Tertiary Education Commission

At the Commonwealth level in response to a different but similar need for co-ordination, a single Tertiary Education Commission has been formed.

In 1977 the Government established the Tertiary Education Commission to advise the Minister for Education on the necessity for, and the conditions and allocation of, financial assistance in respect of the tertiary institutions. The Commission is required to perform its functions with the object of promoting:

(a) the balanced and co-ordinating development of the provisions of tertiary education in Australia; and

(b) the diversifying of opportunities for tertiary education.

The Commission is, therefore, obliged to take note of new activities in universities and colleges of advanced education and to assess the possible effects of these activities on the balanced development of the higher education sector as a whole. The Commission is also obliged to consider the financial implications of such new developments. This element of control is consistent with the need for accountability in the use of public funds and is also consistent with the policy of decentralised operation of higher education institutions. Decentralisation allows a greater adjustment to local conditions and a more responsible allocation of resources than is achievable purely by central direction of these decisions. The Commission is also required to consult with the appropriate State authorities in the process of preparing its advice to the Government.

THE BALANCE BETWEEN COMMONWEALTH AND STATE RESPONSIBILITIES

In Australia under our Commonwealth Constitution, responsibility for Education lies with the six States. However, in the past thirty years the Commonwealth has been expected and has come to hold a major share for that responsibility. The balance between Commonwealth and State responsibilities may largely be settled now, but there are aspects of continuing review.

I must say that, as a member of the Senate Standing Committee on Education involved in our current enquiry into "the effectiveness of Australian schools", I am sometimes tempted to wish the Commonwealth had overriding powers to intervene into some of the less adequate State systems. But, I dismiss authoritarian solutions and console myself that good evidence and sound arguments may eventually compel all kinds of Governments - Federal and State alike!

The Commonwealth Government had been considering the interface of relationships between the Commonwealth and the States in education prior to the completion of the Williams Report which, as you know, made a number of recommendations relating to these issues. At a special meeting, the Australian Education Council in June 1979 considered certain aspects of the Williams Report relevant to State education authorities and to the interface of Federal/State relations. The Council agreed, inter alia, on regular meetings between the Tertiary Education Commission and State authorities to discuss general education and to provide a forum for dealing with Australia-wide issues relating to the balanced and co-ordinated development of tertiary education.

In these remarks tonight I have addressed myself chiefly to the constitutional and legislative framework for Education in Australia. This focus is only part of the current HERDSA theme on freedom and control. The guidelines for undertaking successful education research cannot neglect these political and basic perspectives. However, as successive speakers in the Conference proceedings will show, the balance of freedom and control is also fruitfully and even chiefly considered in the processes of learning themselves and in the practical resolution of such current education problems as Who to teach?; What to teach?; and How to teach?

In conclusion, may I make a final plea. That revolutionary English philosopher, Francis Bacon, who addressed himself to the politics of education-reform and who said that "Knowledge is Power" used to make a distinction in his research between 'experimenta lucifera' (experiments of light) and 'experimenta fructifera' (experiments of fruit). It is the practical application of the latter which is most important. We will serve the people best if our dialogue in this Conference and if the paragraphs of our research always press on to the real world of application and the practical environment of everyday life.

I declare the Conference open.

Freedom and control in higher education

W.G. Walker

As one who has long had a close, some would say too close, interest in the history and administration of universities and colleges, I welcomed Allen Miller's invitation to open your discussions on the question of freedom and control in higher education. The question is a fascinating one, for it is patently the tension between freedom and control which has traditionally irritated, stimulated and nourished the fragile contemporary plant we know as Academe.

This tension was only too obvious to the philosophers in the Embryonic Greek universities, and either Socrates or Plato would have been well able to deliver an address on freedom and control which would not have sounded too anachronistic to our 20th century ears. The tension was also there centuries later at Bologna when Gratian codified the Roman Law and later again when a group of students exercised their right of cessatio and left the Sorbonne for the apparently more attractive fields of Oxenford. And, of course, the tension lived on in the universities of Moslem Seville, in Catholic Munster, in Anglican Cambridge and in secular Makerere, Michigan and Melbourne.

That tension has always been the hallmark of higher education in the Western tradition. Sometimes the tension existed between the university and the church, sometimes between the university and law, sometimes between the university and parliament, sometimes between the university and its local community - and, need I say it - sometimes between university and university.

But the battle between the poles of freedom and control was by no means limited to agencies external to academe. Internecine strife was, as it still is, an everyday, much revered phenomenon. Tensions existed between students and professors, between students and students and, of course, between professors and professors. There were also conflagrations between the faculties, the nations and the proponents of theories within and across the disciplines.

Truly the university was, is - and presumably always will be - a political animal. This has also become increasingly true of the other institutions like CAE's, Institutes of Technology and Community Colleges, for example, which are now seen as part of the Australian tertiary education sector.

For a speaker interested in freedom and control, higher education thus presents for discussion an embarassment of riches. That particular endemic tension which we have identified relates to fields as

widespread as forward planning, examinations, accountability, federal/state relationships, curriculum, accreditation, management and naturally, academic freedom. My immediate problem, then, is to identify some issues which seem to me to be central to the topic and to illustrate these in such a way that I do not tread on the toes of my colleagues who are to present papers in the course of the next few days. I note, for example, Professor Dunbar's paper on a federal system and Mr Parry's theme of state co-ordination. These are areas which I shall refer to only in passing, and then tangentially. I cannot, however, resist the temptation of saying to our two key speakers that I am indeed interested in co-ordination - as must be every student of bureaucracy or public finance. For me at least there always exists the niggling feeling that the number and variety of co-ordinators provided might be costing more to feed than are the activities being co-ordinated. There also survives the suspicion that organisations set up to encourage orderly change eventually succeed, unless they are very careful, in establishing that nightmare of all academic nightmares - the bureaucratisation of innovation. Jerome Frank wrote about commissions and commissioners many years ago in his excellent book If Men Were Angels: I commend the book to you, and make a cowardly but I hope graceful retirement from the federal/state co-ordination sphere in the hope that we will hear in this conference whether or not senior administrators in Australian higher education are in fact so closely related to Lucifer that so many commissioners and their ilk are necessary to supervise them. Seriously, I hope that we do come face to face with the functional aspects of this issue, and will not waste too much of our time discussing how many commissioners can fit on the point of a needle.

But I digress. The areas which I have chosen represent a sort of a "grab bag" which will, I hope, help highlight some issues and provide a basis for some questions and, with luck, argumentation about freedom and control. The issues are:

- The central financing of higher education
- The need for a geniune Community College
- Relationships between academic staff and management
- Accountability and the example of the university

CENTRAL FINANCING OF HIGHER EDUCATION

I have to say at once that I regret the Australian "solution" of centralising the great bulk of higher education funding in the coffers of the federal government. We are all only too well aware that in the funding of such education we see daily the application of the golden rule: "He who has the gold makes the rules". This potentially pernicious practice provides a constant threat to academe's most cherished interests and initiatives. I would not be prepared to say that as yet it has done serious harm but I am prepared to say that it could easily do so. In general I subscribe to the view that the greater the range of financial resources to which an institution can turn for support, the greater are its chances of being free to do what it thinks is best in terms of teaching, research, service and capital development.

The logical developments of this argument are for the re-introduction of state funding supplemented and/or matched by federal grants, and perhaps the re-imposition of fees coupled with a much more generous scholarship system than that which at present operates. Such a move, especially if accompanied by taxation concessions which actively encourage endowments as in USA, would provide each institution with at least four independent sources of funding. To the centralist this will be seen as retrograde, inefficient and untidy. To the decentralist or federalist, at least the one who can see beyond the end of his nose, it can mean the availability of opportunities for experimentation and development which have, by and large, been lost today.

In the early days of Federation Alfred Deakin prophesised that the states would one day find themselves financially chained to the chariot wheels of the Commonwealth. Irrespective of what has happened to the states, there can be little doubt about what has happened to the universities! And I, as an outsider looking in, do not like what has happened. Is it asking too much for statesmen at both federal and state levels to acknowledge that they have created a monster and should deal it a swift death?

While on this theme I cannot resist the temptation to bemoan the absence in Australia of at least one or two private universities. Most senior educators and politicians actively welcome the presence of non-government schools. It is claimed that they provide freedom, variety and stimulation - and, indeed, that they are often more economical to build and operate than are government schools. If these claims are true - and by and large I believe that they can be substantiated - why have some of us not acted to establish such a university? The arguments that we already have too many universities or that we cannot afford to establish new institutions might do for the present but the fact is that not long ago we were short of universities and could have afforded if necessary to subsidise one or two. But we did not do so. Golden days will return, however, and we shall see where initiative lies and whether entrepreneurship is dead. Surely as a nation and as an academic community we have everything to gain from an Australian Harvard, Stanford or Chicago.

THE NEED FOR A GENUINE COMMUNITY COLLEGE

I turn now from the university to what could become the most common higher educational institution of the future: the Community College. As we shall see, I shall go to some pains to emphasise the comparative freedom of the largely independent Community College on the North American model in comparison with the much more bureaucratically controlled environment of the traditional Australian technical college, or even of the "Community College" proposed by the New South Wales government for Dubbo (Orana).

A study of the literature of futurism or futurology suggests a good many differences among the alternative futures hypothesised for western nations like Australia. There is virtually complete agreement, however, on the viewpoint that Australia is about to enter, if it has not already

done so, a post-industrial era. Such an era is characterised by a swing in employment away from the primary and secondary industries to tertiary and quarternary occupations. This swing is accompanied by shorter working hours, shorter working weeks and fewer years of employment. Its social effects are exacerbated by, among others, the impact of the silicon chip and its successors, the increasing level of formal education of the population and the "grey power" pressures against early ages of retirement. The obvious and most pervading effects are the greatly increased availability of leisure, the challenge to tradition "protestant ethic" work values and the growth of hedonism and "bread and circuses" cults.

It is probably pointless to look to the high schools (even assuming a much amended curriculum and a higher leaving age) or to the traditional technical colleges for adequate preparation for life in this era. There is something incongruous about attending technical colleges which have been, after all, largely industrial in emphasis, to prepare for a post-industrial existence!

Australia must shortly face up to the challenge of establishing institutions which are ubiquitous, part of the education "system", attractive to all who wish to enrol and quickly responsive to local needs. They should be capable of providing for a full range of courses ranging from hobby activities to more elementary CAE and university "transfer" courses.

I believe that we delude ourselves if we think that the extent of flexibility necessary for the success of such institutions can be achieved within a large TAFE bureaucracy. The encouragement of such large bureaucracies exercising control over numerous individual colleges would be likely to prove as counterproductive as has the attempt of the various education departments to provide flexible and responsive high schools. In my view we must find a means by which local committees, within broad guidelines laid down by the State, have effective control of their own colleges. If this involves some form of local rating as a contribution to running costs, so be it. If it involves municipal government so much the better. Indeed, if we can establish county councils to provide electricity and abbatoirs I can see no reason why we cannot establish county councils to provide community colleges. Somewhere between "control" and "freedom" lies that societal, professional and academic responsiveness which the post-industrial society will demand. Let us hope we can do a better job of it than has been the case with our vocational and general educational institutions in the industrial society.

Clark Kerr has hypothesised that the universities will be the cathedrals of the twenty-first century. My immediate concern here is for the churches and chapels which provide the human foundations upon which great cathedrals are built.

RELATIONSHIPS BETWEEN ACADEMIC STAFF AND MANAGEMENT

The real backbone of any higher education institution lies in its academic staff. To the extent that that staff is alienated, unhappy, aggressive towards "the administration" then it can be expected to be

less effective in teaching and, where relevant, less productive in research. The traditional relationship between academic employer and employee has been collegial rather than master-and-servant in emphasis. This relationship had produced a rational, friendly and, on the whole, effective quasi-professional relationship. From time to time and from place to place in Australia there were tensions which got out of hand, but councils and senates on the one hand and boards and faculties on the other had reached largely satisfactory, if unwritten, agreements regarding the parameters of control and freedom.

Now, sad to relate, all of this is changing. Difference of opinion has always been a characteristic of academe, but these differences are now being magnified into battle lines. Conventional wisdom asserts that this is due to financial restrictions which have forced universities and colleges to no longer ignore the expensive and non-productive weeds which once hid amid a thousand blooms. Now it is claimed, not only are the weeds being hoed out, but short-lived flowers are being planted in their place! Thus, deep-rooted tenure is under attack and what is seen as the very sap of academe is under challenge. The academic staff reaction has been slowly but inexorably towards unionisation. In my view, in this way, equally slowly but equally inexorably, will academics restrict both their own freedom and that of the employing institution. The only "winner", if that is the appropriate term, is, unhappily, the State.

That this contretemps has occurred is tragic. At a time when the emerging post-industrial western world looks to participative management as a significant means of weathering the inevitable industrial storms of the 1980s and 1990s, the institutions which are seen as the very models of participative management have demonstrated their own weakness. The effect of this will be virtually to invite the Education Departments or the courts into the university to make controlling decisions on such apparently internal issues as subjects taught and hours of attendance by academic staff. This is, of course, what has been happening for some time in USA and what is beginning to happen in this country.

How could this have been allowed to happen? It should have been clear to university administrations that the accepted forms of governance, though slow and cumbersome, did provide a very nearly ideal environment for reaching consensus on such issues as contract appointments, for example. And, clearly and logically presented to academic staff the arguments for a proportion of staff on limited tenure in the interests of academe in a steady state are unanswerable. Yet somehow there was a failure of communication, a breakdown in participative government - and a reduction in the freedom of action of both sides is the likely result.

The reasons for the decline in that freedom which was seen as best in academe are complex and numerous. They include the growing educational sophistication of the populace and the subsequent decline in Vablen's mystery and myth of the university, the increasing demand for public accountability and the declining funds available from often ill-advised central sources. Perhaps also responsible for the decline, but for obvious reasons less commonly discussed, were poor management practices.

The universities have always been good at identifying, diagnosing and treating the pathologies of others. They have been much less active and noticeably less successful in dealing with their own. In my 21 years of offering graduate courses for educational administrators at the University of New England the total number of administrators enrolled from universities could have been counted on the fingers of two hands. By contrast there was a small but constant demand from administrators of CAE's, institutes of technology and the like for places in the programmes, though never in the numbers I considered necessary. I suspect that the interest in those courses among such administrators has increased in recent years; certainly there has been a large increase in those attending the Kellogg-sponsored courses in higher education administration at New England.

Nonetheless, I suspect that higher education generally has still not taken the education of its managers very seriously. That at least is a conclusion which could be drawn from the paucity of such people enrolling at the instutition I know best: The Australian Administrative Staff College. I have no data from other senior management institutions but have little reason to suspect that in terms of disciplined, solid, sustained study of the management process the picture regarding higher education personnel would be very different. This is in marked contrast to the nominations made by industry, commerce, government and the armed services, for example.

Perhaps the point is not an important one. Nonetheless one is left with the nagging question of how and why the intelligent, well educated and by-and-large committed scholarly community, administrators and academics alike, have allowed themselves to be backed together into a corner in which the room for free movement is being gradually and consistently eroded.

ACCOUNTABILITY AND THE EXAMPLE OF THE UNIVERSITY

The whole question of accountability is one to which, in spite of many conferences and several good books, we have not yet learned adequately to face up. The literature is full of the rhetoric of "the piper calling the tune", of the need, however regretfully, to "toe the line", of higher education's being "out of step" with the society surrounding it. It is high time that the more courageous of us in tertiary education reminded press, politicians and populace alike that the price to be paid for having at least one sector of higher education is difference, radicalism and being "out of line". After all, the public, however fickle, can hardly expect to pay people to ask questions, probe, research and think divergently and then criticise them justly for doing those very things.

Yet I do not hear higher education fighting back. It is particularly disappointing that this criticism can be levelled at the universities. Why can this be? Is it that they have lost the faith of their convictions? Have they tired of being everybody's whipping boy? Is it that their leaders have forgotten their potentially influential role in shaping the attitudes of Australia's power elite? Or are they merely biding their time hoping that in due course the pendulum will swing their way again?

Each of these asks no more than a part of the key question which obviously transverses the historical, economic, political, social and managerial disciplines. Personally I believe that the hope of the rebirth of academe at its best lies in leadership - leadership by chancellors and vice chancellors, professors and lecturers, administrators and technicians, staff associations and student associations. The mission of the university needs to be proclaimed by all its members if its remaining independence is to be preserved, much less expanded.

Here, however, we come upon the most difficult, the most sensitive, the most disturbing to academe-at-large, hub of the problem of freedom and control. I know that what I will now have to say will not be well received by some members of this conference and by many more people beyond it.

It is necessary for me to emphasise that the key to the understanding of academic freedom, however, defined, whether yesterday or today, is found not in academe at large but in one sector of it, the university. If the truth is told it was the mediaeval universities, not the cathedral schools or the monastery schools, which were at once the seats of power and the sources of radicalism. The same has remained true throughout the centuries. Today, in spite of all the talk of "equal but different", it is the universities, not the CAE's or the technical colleges, which remain both the key seats of power and the sources of radicalism. This is so in all of the nations I know well: it is by no means a uniquely Australian phenomenon.

With their multiple roles of the development of general culture, training for the "high" professions and research (and especially the latter) the universities, for all their faults, continue in their traditional position as "lighthouse" institutions. Although it may sound trite to say so, they are still at the apex of the higher education pyramid and it is to them that society still attributes that which is best (and, probably, worst) in academic tradition. Further, their ideals remain the model for other academic institutions, in spite of the repeated denials by some distinguished members of the other sectors that this is so.

There is an obvious lesson in my assertions for the nation, for governments, for the professions and for academe itself. The lesson is that the unique, particular and historical place and role of the university in particular must be encouraged and nurtured. We can afford few lighthouse institutions. At the very least let us actively encourage them to provide models of excellence in scholarship and freedom in governance as an inspiration to the rest of us who are not in universities. This, of course, implies accepting the university "warts and all" and we must face the possibility that as a nation and indeed as an academic community our petty jealousies might not permit us the breadth of vision to do that.

On the other hand, as I have gone to some pains to assert earlier, the special recognition still granted the universities places them in a position of visibility and responsibility. The question of the responsibilities of the university of a complex one. As R.S. Peters points out there is a basic procedural hostility between science and morality on the one hand and authority on the other. This, of course, brings the university squarely face to face with the legal-rational authority of bureaucracy so beloved by Weber - and so much admired by so many faceless men in the capital cities of Australia.

Naturally, the responsibilities of the university far transcend the areas of government and bureaucracy, but it should not be asking too much to call for initiatives on the part of the universities to demonstrate their sensitivity to, and awareness of, the chief source of their supporting funds. If I read correctly the well-researched, though not yet examined, doctoral thesis by Tony Gallagher on the history of the Australian Universities Commission the demonstration of sensitivity and good management by universities two decades or so ago might well have resulted in far fewer governmental controls, both state and federal, than we are forced to put up with today. Truly the responsibility lies heavily on universities to provide the leadership, initiatives and management skills to demonstrate that external controls can in large measure confidently be removed by government.

It would, I suppose, be hoping too much to wipe the slate entirely clean but it surely behoves government and its advisors on the one hand and universities and their administrators on the other to examine de novo the special relationship which ideally should exist between them.

Ortega y Gassett, speaking of the European University in the 1940s, put much more eloquently and persuasively than I just where the university should properly stand in modern society:

> .... the university must intervene as the university, in current affairs, treating the themes of the day from its own point of view: cultural, professional and scientific. Thus it will not be an institution exclusively for students, a retreat ad usum Delphini. In the thick of life's urgencies and its passions, the university must assert itself as a major 'spiritual power', higher than the press, standing for serenity in the midst of frenzy, for seriousness and the grasp of intellect in the face of frivolity and unashamed stupidity.
>
> Then the university, once again, will come to be what it was in its grand hour: an uplifting principle in the history of the western world.

I trust that we as a conference have the generosity and perspicacity to grant the universities - and ultimately ourselves - their historical and contemporary due.

I hope that we do so enthusiastically and noisily. If we do so, as with the geese which saved Rome, our cacophony might succeed in keeping at bay those forces, internal and external, which threaten not only the freedom of Ortega's University, but of higher education at large.

Checks and balances in a federal system

D.N.F. Dunbar

Soon after Allen Miller asked me to participate in this Conference and I had agreed to speak on the subject "Checks and Balances in a Federal System" I had occasion to think about the banking system in the USA. There, as you know, they use checks where we use cheques but we all refer to our bank balance. As the USA is perhaps the best known federal system in the world I began to wonder if I should speak to you on the practices of American banks. You pay a cheque in and your balance goes up; you draw a cheque - your balance goes down.

It's all very simple - but as that virtually exhausts my knowledge of the system I decided to turn instead to a much more conventional interpretation of the title and say something of the Australian system of higher education.

In so doing I must confess that I am not entirely clear how widely your interests range as a Society. Nowadays higher education usually refers to universities and colleges - it is thus different from tertiary education which also includes TAFE. As there are now important areas of overlap in interest and function between CAEs and TAFE I believe one can no longer easily draw a sharp distinction and I shall be referring shortly to at least one important aspect of this interface. I hope I shall not be going beyond your areas of interest.

One of our principal problems in higher education today is that we do not as a community think about it seriously and deeply enough. We are simply not sufficiently innovative - not prepared to try out something new - not prepared to look at things from a new point of view. This is always particularly true in times such as the present and the immediate past. When resources are limited, there is very little opportunity for growth and the natural reaction on the part of most of us is to retire into our previously prepared defences making ourselves as comfortable as we can in familiar surroundings. When a system is growing rapidly it is really rather easy to do new things as well as all the old ones. No one has to give up their pet activity in order that something new can be tried. Once funds are limited, however, there are always many more reasons for not doing something novel than there are in favour of it.

It is in just these situations of constraint that we need to think harder and more originally - I believe in the jargon of today what we need is more "lateral thinking."

Having said that, I thought perhaps I should try to practise what I am preaching and I had another look at the title of my talk and decided I should find out the precise meaning of "federal", since I am to speak about a federal system not the federal system.

My dictionary gives the following definitions:

Federal.

(1) Of a system of government in which several States form a unity but remain independent in internal affairs.

(2) Comprising an association of largely independent units.

While I still intend to say something of the Australian federal system of government and its relation to higher education I really can't refrain from spending a few minutes in speculation about that second definition

- comprising an association of largely independent units.

Several such systems come readily to mind:- First perhaps is tertiary education itself. We divide it into three sectors - universities, advanced education and TAFE. They form a kind of federation each sector having a substantial degree of independence but coming together centrally in a rather loosely knit association when resources are being determined or allocated.

Secondly there is a rather more obvious federation within each State in the organisation of the colleges of advanced education. Until recently in Victoria this association of colleges into a federation was the accepted form of administration. Even now there is a substantial element of federation in each State in the organisational arrangement of the CAE's through the co-ordination by the relevant State Authority.

Finally and perhaps at the same time most importantly and least obviously are the individual universities. Each university may be accurately described in my view as a federal body comprising an association of largely independent units. Anyone who has worked in a university will be aware of the strength and independence of departments, schools and faculties. They are in many respects each a law unto themselves and come together only in much the same way as do the States in forming an association known in one case as the Commonwealth and in the other as a university. You may find it instructive to pursue that analogy further and compare the idea of a "university view" on some topic with the views of the faculties - it is very little different from the differences between the States and the Federal Government.

Let me now turn to my principal topic - the role of the TEC and its Councils and the interactions not only between them but also with the various State bodies who have responsibility for tertiary education in some part. Let me make one point clear from the outset - my experience is in universities and my present responsibilities relate principally to universities. I therefore apologise in advance for directing my remarks more to that sector than to the others.

Another point which I should make right at the start is that the arrangements for the provision of tertiary education and its co-ordination vary from State to State. There is, I believe, a growing uniformity of approach but there is nevertheless a substantial variation from one State to another both in the machinery adopted in theory for co-ordination and its effectiveness in practice.

Insofar as there is common ground the situation in most States is that there is a statutory co-ordinating body which has substantial executive powers in relation to colleges of advanced education, increasing legislative authority in relation to universities and some extension of power in relation to TAFE although in most cases the operation of TAFE colleges is very much the responsibility of an appropriate department of the State Government.

Now I am not advocating that the same arrangement is necessary or even desirable in each State. Each has its own peculiar problems which may well require different procedures to be used. What I am seeking to point out is that the arrangements through which decisions are taken on funding tertiary education necessarily involve a great deal of consultation and cannot be sensibly achieved at short notice. Moreover, it is worth reminding ourselves at this point that while universities and colleges of advanced education are fully funded by the Commonwealth most of the funding - particularly recurrent funding - of TAFE is through the States. This in itself presents considerable difficulties when suggestions are made that some of the present so-called middle level courses in TAFE colleges should be more appropriately presented as UG 3 (associate diploma) courses in Advanced Education. This may sound reasonable and entirely justified on educational grounds but since it involves a transfer from TAFE to Advanced Education it also means a change from State to Federal funding.

Commonwealth funding for universities and CAEs is at present provided on a triennial basis for recurrent purposes while equipment and building funds are determined annually. On the other hand, Commonwealth funding for TAFE which is largely though not entirely in the nature of capital funding, is determined annually. The present triennium spans the years 1979-81 and the TEC is already engaged in gathering information which will enable it to make recommendations to Government on appropriate levels of funding for the triennium 1982-84. On the basis of past practice the TEC intends to make such recommendations early in 1981 with the expectation that the government will be able to reach decisions on the level of funding which it will support about the middle of 1981 so that detailed allocations may be made to institutions and States by the TEC in time for consideration by the Government in the Budget session 1981.

That might sound like a fairly leisurely progression but I can assure you that it is a formidable task to gather the requisite data, carry out all the necessary consultation and reach conclusions within that timetable. Let me illustrate in general terms the steps which have to be taken:-

For convenience one may think of the TEC as looking at the total picture for the Commonwealth, it must consider the balance of resources between the three sectors, it must also look at the balance within each sector between such divisions as recurrent funding, equipment funds and buildings. It is clearly also going to have regard to balance between the States and between academic disciplines - we are all familiar with its concern about the numbers of doctors and teachers to be trained. Another aspect of its deliberations must relate to the provision of educational opportunity for the various sections and age groups in the community.

In order for it to formulate proposals in all these matters and more the TEC seeks from the three Councils and others a substantial range of material both in terms of quantitative data and in terms of principles and policies. The Councils are the principal source of advice to the TEC each in its own area of responsibility. They in turn have to collect information each in its own way since the three sectors are very different in the number of institutions and authorities involved. Without going into detail let me say that in the Universities Council we have invited each university to make a submission on its aims and aspirations in 1982-84. These have all been received and we are now in the process of visiting each university to discuss with various groups in each institution the details of their submissions and any other matters which in their view are relevant to the triennium 1982-84.

We also meet the appropriate co-ordinating body in each State and discuss with them the situation in the State with regard to student demand, new academic developments, the range of building needs and other matters which they see as affecting the balanced provision of higher education in the State. This is important information which is an essential part of the formulation of advice to the TEC by the Universities Council. Let me say though that the Universities Council is strongly of the opinion that the universities of Australia form a distinct group of institutions, a group which has to be considered in national terms. To this end the Council places great importance on maintaining the closest possible contact with the individual institutions while at the same time recognising the need for the TEC to achieve a balanced development of tertiary education through consultation at both Federal and State levels.

Toward the end of this year the advice of the three Councils should be in the hands of the TEC which then has the responsibility of examining and testing this advice and in due course - presenting their recommendations to the Government. The TEC may very well need to consult State co-ordinating bodies again at this stage of the process before its final views are put forward. It is perhaps worth recalling here that whether or not the TEC accepts the advice of the Councils it is bound by law to present that advice to the Minister at the time when it makes its own recommendations. As you are all aware it is then the custom for the Minister to table the TEC recommendations and the accompanying advice of the Councils so that they all become publicly available.

Let me remind you that to this point the efforts of all concerned have been directed to preparing advice on the total provision of funds for tertiary education in 1982-84. No doubt each Council will have offered some further advice on the distribution of funds into the principal categories of recurrent, equipment and building funds and indeed the TEC itself may well have expressed its views on the balance of resources between the three sectors. Nevertheless, I think it unlikely that at that stage there will be much in the way of detail in the probable allocation of funds to either States or institutions. That is really part of a later process which occurs once the Government has made known its decisions in the matter.

Once those decisions are taken on the total funds to be provided then the TEC broadly indicates to the Councils its views on the breakdown of the funds between the sectors and the Councils are then faced with the considerable task of distributing the available resources among the various institutions. Here again problems may arise which require consultation before the final recommendations are returned through the TEC to Government for its consideration and eventual approval.

I have given that account in some detail because I have found that the process is not well understood by many people working in tertiary education. It is a lengthy and involved procedure and cannot be easily reduced. Through this process we apply the various checks and balances so essential in our democratic system of government. Perhaps there are too many checks, too many interests to be balanced. No doubt we cannot expect to satisfy everyone but I hope we achieve a result which is recognised as the result of a long and complicated process and takes account of the great many conflicting claims that are made on the system.

One aspect of the system of checks and balances which I have not mentioned but which has assumed greater importance in the last year or two is the meeting of Federal and State Ministers for Education in the Australian Education Council. This is a forum for discussion on many issues concerning education at all levels and provides an opportunity for governments to exchange views and reach agreement on a number of policy matters.

Two recent agreements in particular appear to have caused some apprehension among the members of the university community. They are (1) the arrangement made for consultations between the TEC and State authorities through meetings twice a year of a group made up of a representative of each State together with the full-time members of the TEC and (2) a statement of policy in regard to the introduction of new teaching developments in institutions of tertiary education which has subsequently been put into legislative form in the States Grants Amendment Act (1979).

The consultative arrangements are purely and simply just that. The group concerned has no power to take any kind of executive action or reach a decision binding on its members. It does, however, provide an important opportunity for the exchange of views and information on a wide variety of matters of common interest. These might range from the possibility of developing new courses for specialist needs to the timetable of providing information in relation to the 1982-84 triennium. The meetings are a useful part of the consultative process which is an integral part of the system of checks and balances. It is much easier

to have some tentative views explored in a relatively informal group such as this than to have them processed through formal channels with the inevitable accompanying delays.

The statement of policy in relation to new teaching developments is perhaps an illustration of some of the principal difficulties in operating the checks and balances of a federal system - because that is exactly what this statement of principles is trying to achieve. On the one hand, it is important for universities and colleges to be able to introduce new courses and programmes or to modify existing ones without undue interference by either the federal or state co-ordinating bodies. On the other hand it is difficult to accept that unfettered competition and duplication of courses is in the best interests of tertiary education - particularly if it results as it can in the transfer of staff from one institution to another one nearby with no apparent benefit except a promotion for all concerned.

The need for restraint may occur within a single sector, e.g., two nearby universities, or between sectors, e.g., a university and a CAE. The present complicated co-ordinating machinery can make some of these situations very difficult even to consider let alone attempt to achieve. Nevertheless in nearly all cases resolution has been achieved albeit sometimes on an interim basis. Both national and State views have to be considered and as you might well expect they do not always coincide.

The present principles and arrangements have of course only recently been accepted so it is perhaps too early yet to know how they will operate in practice. To date, however, I believe they have worked well and I am hopeful that with goodwill and understanding they will continue to provide a workable basis for the future.

I have spoken so far chiefly about the checks and balances in relation to the various co-ordinating bodies because in many ways they hold the key to most matters in the provision of tertiary education. One needs to be very clear, however, that there are many other groups and institutions involved in one way or another and deserve to be included in any account of the operation of a federal system.

Let us look at some examples - not with the intention of presenting solutions but rather in an attempt to draw attention to some of the issues involved. Some of these relate to matters within a sector or within an institution others cut across sectoral and state boundaries.

One of the constant problems we face in our attempts to provide a balanced development of tertiary education - as required by the TEC Act - is to recognise and have others recognise that balanced development is <u>not</u> the same as uniformity. There is a great desire on the part of so many people and so many institutions to follow the leader, to copy what someone else is doing. Not so long ago every university it seemed wanted to have a medical school, or an engineering school or a Department of Italian. In the advanced education sector similar fashions appear. A university with a relatively small population of post-graduate research students in its enrolment argues that it should be brought up to the national average. Another seeks an increase in its research funds again to bring it up to the national average.

I sometimes wonder whether they realise that to have everyone funded at the national average represents a degree of uniformity which I suggest none of us really believes is in the best interests of tertiary educatica.

Or to look at it another way I wonder what their reaction would be if their research grant was doubled - but so was that for every other university. Would they be content with the extra funds - or would they complain that the funds should have been distributed in some other way which would have brought everyone closer to the same level? I'm not sure what would be in fact the better result. So much depends on other considerations, such as, for example -

> Does one achieve a better result in terms of balance in the national interest by giving a greater share of the available resources to those doing the best work whether it be teaching or research?
>
> Should they be provided with more funds so that more students may benefit from their skills or should funds be used preferentially to help those in difficulty for whatever reason to reach a higher standard and thereby improve the balance in another sense by achieving a closer approach to uniformity.

Although I have been speaking in terms of funds and funding I believe we should be looking much more closely at the quality of the education being provided. Is it possible to provide the same quality of education in a small school or department as in a larger more widely based one where a student not only has the chance to mix with a greater variety of other students but also has the benefit of a range of views and experience from the larger staff numbers necessary. In a faculty such as medicine for example there is a need for a certain range of disciplines among the staff to provide the training necessary. In these circumstances it is clearly desirable to have a certain minimum number of students if the faculty is to be reasonably effective and economic.

On the other hand sometimes departments can become too big, unwieldy and impersonal with consequent adverse effects on the students. It is by no means easy to identify the right size of a department, a faculty or a university but there are clearly limits at both extremes which are undesirable on the grounds of either quality of education or economy of operation. This is the area however, which arouses perhaps the greatest concern because of the potential conflict between the reasonable hopes and expectations of the institutions and the need for co-ordinating bodies at either State or Federal level to achieve some restraint and balance.

One aspect of the problem of achieving balance in so many of these characteristics of the system is to judge how best to reach the desired situation. Who is in the best position to make that judgement? It may well be that the answer depends on just which question is asked.

For example the university may be in the best position to decide on the balance of its enrolments subject by subject or faculty by faculty. At present the practice of the Universities Council and the Tertiary Education Commission is to indicate a range of total student load for each institution together with suggested maximum load in higher degree research and higher degree coursework. Certainly quotas are fixed by many universities in some faculties and the Universities Council would be concerned to know of proposals to make significant changes in some of these but in general the universities are free to modify their enrolment patterns in response to student demand. They - the universities - achieve the necessary or desirable balance.

I think it is also worth pointing out that to a very large extent the Universities Council has suggested student loads which are a reflection of student demand rather than a suppression or moulding of the demand. (There are of course exceptions in some of the more expensive professional areas such as medicine or veterinary science). This is no more than a reflection of community attitude which is more more attuned to the idea of providing reasonable levels of opportunity for the young people of our community than to the alternative approach of a highly directed and planned society in which there is a high degree of manpower prediction and placement. To a very large extent, e.g., in the movement first in favour of geology and later away from it in relation to the mineral boom of a few years ago and which is showing some signs of reappearing, students vote with their feet. They decide which are the popular courses and which are not. Our role in the funding and coordinating agencies is rather to provide some cushioning of these swings in fashion in the sure knowledge that rapid responses either up or down in resources are likely to create more problems than they solve.

In the past years of substantial growth in student numbers and in resources it was important to place some checks on student numbers and relate them to funds in order to ensure that they did not get too badly out of step. Nowadays with much less growth and relative stability in demand it may be appropriate to look at other approaches to the achievement of balanced development both in and among institutions. Perhaps it would now be sufficient simply to state a ceiling level of student load and allow institutions to arrange their own internal balance among the various categories of student e.g. undergraduate/post-graduate, part-time/full-time/external, direct from school/mature age or on a faculty to faculty basis. Another approach might be to indicate an appropriate level of new enrolments which would go some way to ensuring a continued level of opportunity for intending students. Different approaches may be used for different institutions and in any case I expect there will need to be continuing specific control of entry in faculties such as medicine.

It seems that there has been some slackening in demand for university places among young people leaving school in recent years. In some States the actual student intake has fallen below expectations and projections with the result that some universities and indeed some CAEs are not enrolling as many students as was expected. This may well lead to some reconsideration of appropriate levels of student load so that a balanced system of educational opportunity may be provided.

It is interesting to note for example, the recent decision by the Tasmanian Government in relation to the provision of teacher education in Southern Tasmania. This has led to the University of Tasmania accepting responsibility for all teacher training in Southern Tasmania together with certain other activities of the TCAE in Hobart and the intended closure of the Hobart campus of the TCAE. This new concept of a comprehensive university offering a wider range of courses than a traditional university is an imaginative and interesting solution to a problem which others are likely to have to face also. I believe it is important for new approaches like this to be carefully examined and where they give good prospects of success they should be given every encouragement and support. It is early yet to know what will happen in Hobart but even at this stage it looks very promising.

Perhaps one of the most intractable problems in higher education for the next few years will be trying to match some slackening in demand for higher education due to a variety of courses including some changes in demographic patterns with the need to maintain a satisfactory level of educational opportunity in an environment of economic restraint. In other words how can we provide the best possible educational opportunity within the funds available?

Some adjustments in balance seem to be inevitable as demand fluctuates and switches from one field of activity to another. Our capacity to achieve these adjustments is going to depend critically on our willingness to work together in a federal system. Each level of the system has its own opportunities to accept responsibility for seeking the appropriate balance of activity. In my view it is very important that we do not encroach unreasonably in areas where we are not well informed and therefore not able to make sensible judgements. The system of checks and balances which is essential in any federal system must itself be checked from time to time to see that it is not out of balance. It is important that we should be accountable to the taxpayer because after all it is his money we are using but I am sure that accountability can be provided and must continue to be provided in a way which does not unreasonably inhibit the free inquiry and research which are so essential to higher education.

Institutional autonomy and state co-ordination

R.E. Parry

We are only a few weeks away from the fifteenth anniversary of the establishment of the first State co-ordinating body in advanced education in Australia - the Victoria Institute of Colleges. As it happens, we are probably also only a little more than a few weeks away from the dis-establishment of that same body, as its role is subsumed within that of the Victorian Post-Secondary Education Commission. A quick review around the nation reveals how much the scene has changed in relation to State co-ordination of post-secondary education over scarcely more than a decade. During the late sixties and early seventies, most States followed Victoria's lead in establishing a co-ordinating authority in advanced education but only one such body, the Queensland Board of Advanced Education, survives today as an agency concerned exclusively with that one sector of post-secondary education. State co-ordinating bodies continue to prosper, of course, but almost everywhere, their role has broadened into that of a comprehensive post-secondary authority of some kind. Even in Queensland, proposals are under discussion for changing the nature of the present machinery for giving co-ordinated advice on higher education to the State Government.

During the time since the first colleges of advanced education (and the VIC, as the first advanced education co-ordinating body) were established, the relationships, not only between the colleges and the State bodies, but also between the universities and the State bodies, have changed in interesting ways. In the early days, you may recall, when the VIC was pioneering the work of State co-ordination, little doubt was allowed to remain in anyone's mind about the different measures of autonomy which governments saw to be appropriate for universities and colleges of advanced education. By and large, the former were thought to need intervention in their affairs by a government body (at that time a Commonwealth Government body) in only two broad aspects. One was the approval of major new academic developments which would have a significant impact on the financial resources which governments would have to provide; the other was the approval of major capital works. "Although, in those days, the major Government body concerned was a Commonwealth one, it is significant that, from as early as 1967, the NSW Universities Board was exercising an influence on the decisions made in that State about the development of university facilities.)

For colleges, on the other hand, it was thought necessary to provide for fairly close official oversight of all new course approvals, both major and minor capital works, equipment purchases and staff establishments, as well as the specific academic accreditation of the courses offered.

The intervening decade or so has been a story of continuing attempts by the colleges to reduce the extent of that oversight by government agencies, an oversight which has been variously viewed - at best as patronising, and at worst as infuriating. The on-going campaign has been to achieve a form of autonomy similar to that of the universities.

Over the years, the State co-ordinating bodies have indeed withdrawn progressively from a number of those activities which characterised the early days. Approval of college staff establishments has largely gone, and interest in equipment purchases tends to be confined only to such expensive items as computers. There has been increasing recognition of the fact that it is unjustifiable to subject well-developed and well-managed colleges of advanced education to a succession of bureaucratic constraints and controls which are not applied to universities, whose size and vintage in many instances scarcely match those of the colleges. Concurrently with these evolutionary processes in relation to the colleges (and to a large extent as a consequence of them), State Governments have taken an increasing interest in the activities of the universities and it is no doubt common knowledge among this congregation that Australian universities are at this time very sensitive about a number of legislative provisions which have been made at both Commonwealth and State levels over the last three years that appear to have the effect of reducing the traditional freedom of university governing bodies to apply the resources given to them to academic activities which to them seem best to meet the universities' obligations under their charters.

In brief, there has been a convergence in the relationships between the two types of higher institutions and government bodies, and I do not think it is an unreasonable generalisation to offer, as a backdrop to what I wish to go on to say, that the only significant area remaining in which the college system is dealt with in any marked contrast to the universities is the area of course accreditation. I know that many of you will be able to bring forward numerous immediate examples of what still appears to be detailed involvement of State bodies in the decision-making process in colleges, but I nonetheless adhere to my thesis that these represent but the few remaining vestiges of an age which has all but passed.

Even in the sphere of course accreditation, changes are now afoot which can be expected, over the next few years, to result in far greater responsibility being taken by colleges in regard to the self-accreditation of their courses. Most States are moving at the moment to devolve upon the colleges a large measure of the responsibility for the conduct of the accreditation reviews which have to be carried out periodically on registered courses, and new statutory arrangements have been enacted, or are in preparation, to facilitate further devolution of this kind.

It can be expected that college authorities will continue to press vigorously for the acceleration of this process of devolution and it can also be expected that the State accrediting authorities will exhibit some reluctance to see the process proceed too swiftly, because they are in possession of altogether too much incriminating documentation which establishes, often in a damning way, the shortcomings of the measures which colleges have been applying to the development and the oversight of their courses.

One aspect of this matter on which one cannot help but have real sympathy for the colleges is the undoubted fact that, if the universities were subjected to the same kind of course accreditation as the colleges are, some spectacular and embarrassing findings would emerge. I am sure that this is true, but there seems little to be gained by pursuing such a debater's point. It would be flying in the face of history and common sense to contemplate the initiation of accreditation of university courses by a government agency and it seems to be much more sensible to take the realistic view that natural trends will result in those colleges which are sufficiently academically consolidated accruing an acceptable degree of autonomy in these academic matters. Time will take care of this.

I believe, then, that we are in the process of settling down to a set of relationships within which established colleges of advanced education and universities are seen in broadly similar terms by governments and within which both have as much autonomy as they are ever likely to get in the future. I am suggesting that it may be academic, in more senses than one, to continue to debate the question of institutional autonomy as it affects the relationship between either colleges or universities and State co-ordinating bodies. Though it might still be good for an argument or two, it is not the burning issue of our time and I should like now to go on to raise what I feel is to be the much more interesting and significant issue from now on.

Looking back, you could describe the 70's as the period of co-ordination. The early part of this period was characterised by the mushrooming growth of higher education of which so many commentators have now spoken and it does not seem to be a scrap untoward that governments at both levels should have wished to ensure that agencies were in existence which, on their behalf, could establish some ground rules to prevent this splurge of higher education from becoming totally chaotic. Co-ordination of major new developments has to be carried out by somebody. Had there not been State and Commonwealth boards and commissions, it would have been done by Treasuries.

For the 80's, however, I think that the task of co-ordination is to take second place to the more urgent task of rationalisation, and it is in this context that I think it is of interest to consider the relationship between existing institutions of higher education and State so-called co-ordinating bodies. Put another way, it may be that the question of the 80's is not whether such Boards should have the power to interfere in the autonomous operations of the higher institutions, but what the role of these Boards should be in determining questions relating to the very existence of those institutions.

We face the future with too many higher education institutions or, at least, too many of them poorly located. There have been, I acknowledge, a number of important moves during the late 70's to ameliorate the problem arising from the earlier proliferation of higher institutions. These moves were confined within the advanced education sector and, as you will well know, resulted in amalgamation of the colleges of advanced education in both Ballarat and Bendigo, the absorption of the Emily McPherson College into the Royal Melbourne Institute of Technology, the absorption of the College of Nursing, Australia, into Lincoln Institute,

the amalgamation of two colleges of advanced education to form Hartley College of Advanced Education and of two others to form Adelaide College of Arts and Education. The period also saw the closure of Grayland College in Perth.

Having embarked on this route a little later than its sister States, New South Wales is currently engaged in the amalgamation of four metropolitan colleges of advanced education into a single new college which will be formed as a federation of semi-autonomous teaching institutes under one governing council.

We have reached the stage, however, where there appears little more that can be achieved, in any obvious way, by mergers and absorptions within the advanced education sector alone and I believe that what we are about to experience is the beginning of a new era in which forms of association will take place across the sectoral barriers. Of most immediate interest in our present discussion are the implications that this proposition might have for the future of some individual universities and colleges of advanced education.

From the earliest days after the Martin Report gave birth to the concept of the binary system, there has been continuing debate about the philosophical differences between universities and colleges of advanced education. Many have been the authors who have pleaded the case for a unitary system, in which institutions differ from one another not according to generic class, but according to their individual emphases and excellences. I have never accepted the line, adhering to the view that the binary philosophy was essentially an honest and honourable one and that there was only detriment to the community interest to be suffered in removing the philosophical constraints of the binary concept and allowing the tertiary market to run free.

I have been interested to look back to some remarks I made in 1974 at a Conference of the Federation of Academic Staff Associations of Colleges of Advanced Education at Warburton. The title of the Conference, significantly, was "Whither Advanced Education?" Even then, the problem of maintaining in separate commitments one's views about the roles of universities and colleges of advanced education was becoming severe, even in the mind of a committed binary believer such as myself, as the following quotation might indicate:

> Even if the role and function of universities were not already thought to have changed markedly in response to the CAE development, what is soon to happen at Geelong will introduce historic new attitudes towards the nature of a university. When the Gordon Institute of Technology and the State College of Victoria at Geelong combine to form the essential core of Victoria's fourth university, new rules will unwittingly have been written. In order to avoid the loss of the best of the educational traditions of both participating institutions, the emphasis in this university will be on meeting the <u>total</u> higher education needs of its surrounding region, and this emphasis will show itself in a readiness to retain sub-graduate courses,

> to adopt a flexible attitude to entrance requirements and to maintain a close concern for vocational preparation in the interests of both the students and the industrial and commercial development of the region. Indeed, one can see a fine college of advanced education emerging from this marriage.

Deakin had come upon the scene and it was becoming clear even then that the binary philosophy could never be the same again in Australia. Nevertheless, while Deakin remained the only university of its kind among 19 otherwise conventional universities there was no real case for calling for a national re-thinking of policies on higher education. On the other hand, I must say that I, for one, had an expectation that the Williams Committee would come forward with a new rubric for the 80's and 90's which acknowledged the instability of the Martin binary principles in the light of the forecast trends through to the year 2000. The committee did not, however, report in this way but chose to see the existing sectors of post-secondary education as inherently stable, provided that optimum use were made of the stratagem of contracting work between the among them.

But it is not to be so. With the ink barely dry on the Williams Report, the Government of Tasmania has, in one crisp decision, overturned the framework of our national dialogue on the nature of institutions of higher education and the relationships between them. If I am correct in my anticipation that the precedent set recently in Tasmania will be emulated elsewhere in Australia ere long, I cannot but reflect on the oddity of the fact that the future course for our institutions of higher education has had to be chartered for us in so ad hoc a fashion.

You will all know the Tasmanian story well enough. The Tasmanian Government simply came to the end of its tether. After four years and four enquiries and bitter conflict, the need became acute for a decision about the future pattern of higher education in a community which could support two, but not three, institutions. The final chapter in the story was begun by the decision of the Tasmanian Government to invite the University of Tasmania and the Tasmanian College of Advanced Education to submit proposals as to how each would respond to the situation if it were asked to take sole responsibility for teacher education in the south of the State. It was the nature of the university's response to that request which not only led to the Government's speedy decision to close the Mt. Nelson campus of the College of Advanced Education and to transfer its activities to the university, but also de facto to the re-writing of the rules, so far as university education in Australia is concerned. I think the last occasion on which a comparable flash of enlightenment was experienced took place on the Damascus Road.

For those who will wish to chronicle the significant moments in history, the following paragraphs from the Report of the Tertiary Education Commission of Tasmania to the State Minister recommending the absorption are worthy of note.

> Until now it has not been feasible to move finally in the direction favoured by these inquiries because the University has not been in a position to ensure the continuation of important features of teacher education offered by the School of Education at Mt. Nelson and, in particular, its integrated B.Ed. course, (defined in the TCAE Submission, Part B, Para. 2.1). The Commission is satisfied that the University has now undertaken a basic reappraisal of its role in higher education in the State and can guarantee to provide all of the features of teacher education required in the South. This being the case, the Commission considers that the rationalization process, commenced with the Karmel Inquiry in 1976, should be completed. Indeed, the need for this rationalization is greater than previously becuase it has since become apparent that there will be a reduced demand for teachers during the 1980s.
>
> 2.4 The Commission has been impressed by the proposal by the University that it would become a more broadly-based institution and that it is willing to make the necessary changes in its activities and its administrative structure to achieve this. The new concept was summarized by the University as follows:
>
> > The University indeed welcomes the opportunity to evolve into a comprehensive regional university new to Australia which could well be a model for small universities in other parts of the Commonwealth. Under this scheme the University would maintain its traditional scholarly activities but also offer a broad range of courses and services more usually offered by colleges of advanced education in other States.

I do not think that we should under-estimate the leap of philosophy which is implicit in these words, leading as they have done, to a decision whose ramifications ought ideally, I suggest, to have been the subject of wide national consultation.

I mean no criticism of either the Tasmanian Government or the Tertiary Education authorities of that State. From a pragmatic point of view the decision taken is not only an attractive one but probably the optimum one. It may not, however, be too unkind to suggest that the documentation which surrounds the decision reads rather like the rationalisation of the inevitable and it becomes very difficult to argue now why a similar course of events could not take place with equal facility and expedition in numerous other locations throughout Australia where universities and CAEs are in proximity and struggling to prosper in the service of an insufficient market.

That a decision of this kind, attractive though it might be on practical grounds, does not necessarily provide a long-term solution may perhaps be gleaned from the following words of the Principal of the Tasmanian CAE in his dissenting statement as a Member of the Tertiary Education Commission of Tasmania:

> 2.3 This decision does not lead to the rationalisation of Tertiary Education in Tasmania, on an academic basis. It will lead to inevitable and direct competition between a strong comprehensive University and a much weakened College of Advanced Education, not only in respect of Teacher Education but also in other vocational academic fields. The Tertiary Education Commission of Tasmania does not have the statutory powers to prevent present or new course competition from happening.

In other words, Dr O'Flaherty, looking further down the track, has doubts whether an acceptable status can be maintained for a college of advanced education to meet the needs of the northern half of the State when the needs of the southern half of the State are being met exclusively by an institution with the prestigious title of 'university'. I believe that he shows prescience in raising this point.

What is it that really makes the University of Tasmania's decision so significant? It is the fact that it has given itself a new adjectival title. It has begun to describe itself, not simply as a university, but as a "comprehensive" university - one able to offer a range of courses straddling the sectors hitherto described separately as university education and advanced education, and it has done this with the approval of the Federal funding authorities and the relevant State Government and to the plaudits of the leader-writers in the significant dailies throughout the land.

Whatever has been the path by which we have arrived at this point, it now seems to me that it is open to State co-ordinating authorities, in contemplating the severe problems facing them in their college and university systems as enrolments level out and in some cases begin to decline, to speculate about the possible development of this new type of institution - the "comprehensive" university. Why, the State Boards must ask, should such an institution not emerge anywhere where a Mt. Nelson type of situation exists.

Already the dialogue is under way on the mainland. In a graduation address delivered in Wagga on 11 April 1980, Professor Michael Birt, Vice-Chancellor of the University of Wollongong, has invited the Riverina College of Advanced Education (not, by the way, in any sense a threatened institution in the eyes of most of us), to engage in conversation which could possibly result in the formation of a "multi-purpose multi-campus organisation of higher education offering a range of university and advanced education courses from 2-year Associate Diploma to PhDs" and embodying, not only his existing university and the Riverina CAE, but also Wollongong Institute of Education and Goulburn CAE. Professor Birt based his presentation fairly and squarely on the

significance of the recently announced development across Bass Strait, which he rightly described as "the most remarkable of amalgamations" and "a landmark".

I doubt, myself, whether the particular consortium mentioned by Professor Birt would ever be practicable but the important thing to note is that here is yet another university Vice-Chancellor ready to espouse the "comprehensive" philosophy. I am absolutely sure that he will not be the last to do so.

What, then, are State co-ordinating authorities to do? It can be expected that there will be substantial support, especially among the lay members of these authorities, for rationalisations of the Hobart kind, particularly if they take place by way of consensus between the participating institutions. Is there any reason why State authorities need to take an interest in this question before a series of further dominoes tumble?

I believe there is. If State authorities are to fulfil their essential purpose as policy and planning bodies (and there is widespread agreement that they should concentrate on this role and keep out of the hair of autonomous colleges) then they should be looking down the track now to the point where there could well be quite a few "comprehensive" universities in their State systems. The big question then will be - what is to be the role and future of those institutions which have evolved into strong and successful CAEs and which happen not to be located next door to a small and possibly struggling university? Are the proprietors and students of these colleges, many of which represent, in my view, the very best of developments that characterised the post-Martin era, to be denied the accolade of university status, when others of their kind, embarked on identical objectives, have entered into the inheritance of the highest institutional status which our community recognises?

It would be a naive Commission or Board member who maintained that the pressures which will build up in these colleges for university status can be contained indefinitely. While the binary philosophy remained, it was possible to say, even to the biggest and most academically oriented of the CAEs that they had their own high status as successful examples of non-university institutions much valued by the community. It will become progressively less possible to argue in that way and it is not difficult to see a quite untenable situation having arisen by the mid-to-late 80's.

I concluded my remarks in Warburton in 1974 with the following words:

> Whether it will prove possible or desirable, in the long run, to maintain the separate identity of the colleges of advanced education in the complex of post-secondary education, one cannot say, but whatever happens, the beleaguered community, sore pressed by the confusion we are presently generating, must be better served if we can bring a greater measure of clarity to what we are trying to do in our own college system.

I must have felt then that the days of the advanced education sector as a defensible separate form of higher education might be numbered. Certainly the current trend of events heightens my feeling that a new period of instability and uncertainty has been ushered in. For the thoughtful public it must surely be becoming less clear what we are trying to do in the college and university systems and I consider that there is an urgent and outstanding challenge to State co-ordinating bodies to take a grip on the situation before any further time elapses and any further ad hoc decisions are taken that will close off even more of the rationalising options open to us.

Throughout all this discussion I have so far made no reference to a problem which, though not taken into account in the Tasmanian developments, nevertheless faces all co-ordinating bodies in post-secondary education in Australia with mounting seriousness and that is the overlapping roles of colleges of advanced education and colleges of technical and further education in the provision of courses at the immediately sub-professional level.

The establishment of a "comprehensive" university in Hobart, Wollongong or anywhere else will not in itself mitigate this problem and it could well be shortsightedness of a high order to put the government imprimatur on a CAE/university merger without contemplating the further co-ordination problems with TAFE looming up on the horizon.

What should we be doing next? It seems to me that the time has come when some cool and rational debate should be generated on the desirability and implications of establishing a co-ordinated system of institutions of higher education which might take a title somewhat like "the State University of NSW". Within the ambit of such a body, co-ordinated by a single "board of regents", there could exist, in principle, an unspecified number of autonomously conducted comprehensive universities, some of which could have arisen in the Hobart mode, others of which might be existing viable colleges of advanced education re-named.

This seems to me to be the only long-term means of eliminating the tension and conflict which will always bedevil and enervate a system in which broadly similar institutions are assigned different community status. That glorious line from the Gondoliers says it all.

If events were to proceed in this way there would still be two classes of higher institutions - those large and older university foundations continuing to adhere to the red-brick tradition and eschewing the suggestion that they ought to be "comprehensive" in order to survive. Separately, there would be the co-ordinated system of comprehensive universities. I sense that this situation would be more acceptable in the long run to the community as a whole, both lay and academic, than the situation we now face.

Remembering, of course, that I still believe that the TAFE/advanced education interface has to be dealt with, it would be possible to develop further the concept of a State University along lines more akin to those of the State University of New York, so that all kinds of post-secondary institutions, including corporately governed community colleges

and colleges of TAFE, could be drawn in under the co-ordination of the board of regents. There is room for much creative thinking here.

I conclude by observing that you may well feel I have strayed a goodly distance from my appointed theme, which suggested a closer examination of institutional autonomy. I am unrepentent, believing that if, like the philosophers of old, we wish to know the number of teeth possessed by a horse, there is much less to be gained by an academic discussion of the question in committee than by looking in the horse's mouth. To continue the zoological metaphor, there is something rather pointless about a discussion of a fishes' right to be independent of its parents when it is inside the shark's belly.

If you doubt this, ask the people of Mt. Nelson.

PART II

FREEDOM TO LEARN

5. A call to 'process' learning in higher education
   R. Landbeck

6. The use of cognitive development models to guide teaching method
   K. Mason

7. The self-directed learner: An undiscovered species?
   V.A. Brown

8. Designing courses for students rather than teachers
   J. Powell

9. Independent study - A viable option
   L. Marshall

10. Involving students in planning, teaching and evaulating their own programme
    M.F. Fogarty

11. In the eye of the beholder: Postgraduate supervision
    D. & K. Battersby

12. Student learning skills: Attitudes of Australian academics
    J. Bowden & J. Anwyl

INTRODUCTION TO PART II

It is interesting to note that although each of the invited papers deals with some aspect of government or quasi-government control over higher education, the largest collection of submitted papers on one topic deal with the freedom of individual students to decide content, method and pace of learning. These papers are now brought together to allow the rather differing viewpoints and emphases of their authors to be compared and contrasted.

The section opens with a plea by R. Landbeck for tertiary teachers to re-examine their beliefs regarding the relative importance of content and process in student learning. In a period of rapid expansion of knowledge and unpredictable changes in requirements for graduate employment, there is a strong argument for a greater emphasis on the process of learning. Tertiary courses which help students to learn for themselves and at the same time expand students' vision of what can be learned are more likely to achieve the broad aims of higher education than narrower content-centred courses, he claims.

A shift in emphasis from "content" to "process" raises certain ethical questions for the teacher who must decide whether one should attempt to change students' attitudes in a particular direction. These fundamental issues are taken up by K. Mason who, starting with the premises of Perry's stages of ethical and intellectual growth, questions whether tertiary teachers can or should assist their students to develop the higher levels of thinking described by Perry, those of relativism and commitment. She suggests that this might be accomplished by varying the structure of courses according to the needs of individual learners, making full use of diverse opinions and interpretations, providing opportunities for more direct experience, and encouraging the personal involvement of students in communal learning activities.

V.A. Brown's paper complements the previous one by focussing attention on the degree to which tertiary students exhibit self-direction in their learning. She presents evidence which indicates a certain amount of self-selection by students of courses which will provide the amounts of guidance, or freedom, desired by the student. Evidence from other sources supports the view that students learn best when their style of learning is matched by the style of teaching they receive, hence the need for greater care in matching students to tutors, particularly in first year tertiary studies.

The paper by J. Powell takes the issue further by providing anecdotal evidence for his main contention: that tertiary courses as presently designed result in greater learning for the teacher than the student, but that this trend could be reversed.

It is unfortunate that the paper presented by L. Marshall was not available in time to include in the present volume. She describes the system of "independent study contracts" which is being successfully used at Murdoch University. The system encourages students to think about their own interests, background knowledge and learning capabilities and on the basis of these, plan a study programme with the assistance of their tutors.

In many ways there are similarities between the study contracts used at Murdoch and the type of student involvement at North Brisbane CAE described by M. Fogarty, except that in the latter case the students worked in syndicates on their projects. M. Fogarty provides a case study which illustrates how the principles enunciated in earlier papers can be translated into practice by a judicious mixture of teacher and student responsibility for a course.

Problems associated with defining and attaining a desirable balance between direction, guidance and freedom are described in the two remaining papers in this section. D. and K. Battersby present evidence from a survey of post-graduate students in education which indicates students' need for guidance in the early stages of their research but their dissatisfaction with supervisors who were either over-directive or who appeared to lack any interest in the student's work. The investigation reported by J. Bowden and J. Anwyl examines Australian academics' attitudes to the provision of formal assistance to students in the development of study skills. As might be expected, they report a range of views on this subject with some significant differences between lecturers in universities and their counterparts in CAEs. The question whether short courses in study skills are of equal benefit to all students who enrol for them has, of course, been argued extensively elsewhere.

A call to 'process' learning in higher education

R. Landbeck

The paper will look at the theme 'Freedom and Control in Higher Education' from the viewpoint of the curriculum and the need to emphasise more strongly the 'process' of learning rather than the 'content' of learning. Although the theme of the paper is not new, the rapidly changing social, political and economic situation and the questioning by politicians of the value of today's education suggest that it is time to look again at the 'process' of learning and how it can be encouraged. This would be an attempt to lift the quality of higher education in a direction more likely to satisfy those calling for greater accountability. An important part of 'process' learning is the concept of self-directed persons who take control and responsibility for their learning. Present curricula do not generally encourage this freedom for the learner but rather emphasise that control is firmly in the hands of the teacher. One other factor that could affect a move towards 'process' learning is the growth in interest of self-help health care which also features more control passing from 'expert' to patient. The paper will draw on Biggs' (1973) discussion, to illustrate the features of 'process' learning and then review some ways in which higher education has sought to implement the principles e.g., the work of Moss and McMillen (1980) on problem solving and Huczynski and Boddy (1979) on management education and some programmes of independent Study. Finally there will be a consideration of the ways in which 'process' learning might be encouraged and some of the problems to overcome.

A CALL FOR ACCOUNTABILITY

Australian Universities are currently facing a call for accountability. Concern has been expressed, particularly by the Federal Government, about the expenditure incurred in Universities and there are signs that external controls will be exercised which for many academics constitutes a breach of academic freedom. As examples of the call for accountability there is the recommendation of the Williams Committee (1979) that 'universities assess the nature and outcomes of the formal reviews conducted by the Australian National University and consider the implications for their own procedures'. Then there is the funding by the Tertiary Education Commission of evaluation studies in Universities. Clarke and Edwards (1979) in their review of current issues in the administration of Australian Universities strongly urge that the universities must attempt evolutionary change or face the prospect of being overwhelmed and changed by invasion and destruction.

In what ways can Universities respond to this accountability movement? This paper will suggest one way is to improve the quality of graduates produced by Universities by shifting the emphasis of the curriculum from the content to the process of learning this content. This is not to deny in anyway the importance of the content or to deny that much process is gained through learning content. It is asserting the need for a greater emphasis on process which will equip graduates with generalised skills that will be of more permanent value than a 'bag of knowledge' which is often quickly forgotten and often overtaken by further developments in the subject.

THE PROCESS OF LEARNING

It is important to first establish the meaning of 'process' as it will be used in this paper particularly as the word has a particular meaning in curriculum studies, for example see Stenhouse (1975). In this paper process will encompass such skills as knowing how to learn about a subject, knowing how to apply knowledge in new situations and problem solving. It will also include development of more personal skills such as self direction in learning and self assessment.

Defined in this way process is closely linked with the ideas of Rogers (1969) on learning, especially the following propositions:

> Learning is facilitated when the student participates responsibly in the learning process.
>
> The most socially useful learning in the modern world is the learning of the process of learning, a continuing openness to experience and incorporation into oneself of the process of change.

It also has links with experiential learning which seems to be attracting a growing interest from a wide variety of educators as Bond and Pascoe (1978) show.

Finally it is very much in sympathy with Dickson's (1979) view that Universities should be actively involved with the community and be putting resources back into the community. Dickson develops nine models of ways in which this can be achieved. Such involvement would itself go a long way towards countering the call for accountability and would considerably improve the public image of universities. Involving students in this way would also clearly improve the process of learning.

The proposal to place more emphasis on the process of learning will not be easy to implement. This paper will only be able to point out some of the problems and describe briefly some of the efforts to develop the process of learning in the hope that some will be encouraged to attempt similar innovations.

THE CLIMATE OF UNIVERSITIES FOR CHANGE

Before considering examples of ways in which more emphasis could be placed on the process of learning, it is important to consider how receptive universities are likely to be to a call to change in the direction suggested. Is there sympathy with the importance of the process of learning? In fact factors are at work indicating that such changes would be difficult to implement.

The first factor is at work outside the Universities and has been analysed by Dore (1976) in his book 'The Diploma Disease'. He shows how universities have gradually become 'qualification certifying' institutions in which the emphasis is on the qualification and not on the quality of the process of obtaining the qualification. This has occurred because society now places great store on qualification so that jobs that were formerly open to high school leavers are only

available to those with degrees or diplomas. The problem is particularly acute in developing countries but is also present in Western nations. Faced with the pressures of the importance of the qualification students are less willing to be concerned with the ideals of education and more concerned with what makes the grade. This analysis is further confirmed by the work of Becker, Geer and Hughes (1968) in America and Salter and Percy (1976) in Britain who showed that students do perceive higher education primarily as a system of assessment and accreditation.

From their interviews Salter and Percy provide an apt quote by a student

> The emphasis in higher education these days is far too much geared to churning out X numbers of people with mediocre degrees, and the system itself geared to a rigid exam-based syllabus leaves little if any time for individual research.

A second factor at work which is counter to the spirit of the proposal for change being advocated here is the nature of the present curricula, particularly the science curriculum. Cornwall (1975) strongly attacks the authoritarianism of teaching methods and the insistence of 'providing educational picnic baskets that must be stuffed with all the staple foodstuffs of basic knowledge and factual titbits which are necessary to sustain our graduates on their path through life'. He suggests that it will require 'a profound shift in our educational values to accept that perhaps 'learning to learn' and several other skills are more important than the acquisition of knowledge'. If this is the case the prospects for change are bleak indeed.

In spite of all these negative forces ranged against the development of the 'process of learning Salter and Percy (1976) showed that in fact university staff are interested in the 'pursuit of excellence', indeed they saw this as the raison d'être of higher education. Excellance was seen as associated with independence when a student can think critically for himself, stand aside from subject matter, draw inferences and thread his way to independent conclusions.

Unfortunately in spite of these ideals staff seem out of touch with students as they really are as Entwistle and Wilson (1977) observed.

> Staff seem at times to inhabit a dream world of idealised past experience and expectations based on a dwindling proportion of exceptional students who share their own enthusiasm for the intellectual life.

In fact Entwistle (1974) had earlier noted the isolation between lecturers and staff who although they had daily contact with each other 'operate category systems which attribute blame to the other group - indolent students are boring lecturers. It is almost as if we had here another "two cultures" with the same gulf of mutual incomprehension'.

So although the factors at work are strong and seem to be opposed to change there seems at the same time a need for university teachers to get into closer touch with the realities of student views and their intellectual development and for students to be helped to a greater

understanding of the possibilities of university education. For this to be achieved, however, messages about the importance of grades have to be cancelled out.

HOW CHANGE CAN BE IMPLEMENTED

Having examined the climate for change in Universities the next move is to consider ways of implementing change. Since it is difficult to change the attitude of society described by Dore the best approach is probably by small changes within the University. In a review of research of student learning Elton and Laurillard (1979) concluded that the most powerful way to change the student approach to learning at least in universities in the Western tradition is through the assessment procedures. Therefore in order to encourage the process of learning it seems necessary to reward it by assessment. This immediately presents a problem for little work seems to have been done on this method of assessment. Biggs (1973) made some suggestions at the high school level which could form the basis for further development. Clearly this is a priority area for further research if there is to be a shift to more process learning.

As an encouragement to change it would be worthwhile examining some examples of what has been attempted and what lessons can be learned from these innovations. A variety of examples will therefore be now presented which illustrate the range of possibilities open to the innovator.

SOME EXAMPLES OF INNOVATIONS INVOLVING THE PROCESS OF LEARNING

Learning to Learn Although there has never been a lack of books on 'how to study' the last few years has seen a growth in interest in a different approach devised by Gibbs and Northedge (see papers by Gibbs and Northedge, 1977; Gibbs 1977; Gibbs 1978) which aims to develop in students a capacity for self appraisal of study methods which continues to be of use as their skills develop. The amount of interest can be judged by the fact that the study manual for the approach has reached over one thousand teachers in higher education without any major publicity and marketing exercise. This manual has now been rewritten in versionsaimed more specifically at different subject areas since it was discovered that student response to the exercises was most enthusiastic when exercises were used which related to courses, Gibbs, (1979).

In addition to this development there has been a growth in research on student learning such that the entire September 1979 issue of 'Higher Education' was devoted to this topic.

Problem Solving Probably the largest programmes that emphasise the process of learning are the medical degree at McMaster University, Canada and its adaptation in Australia at Newcastle, Engel and Clarke (1979). These courses have stressed the importance of training future doctors to be problem solvers rather than provide them with a bag of knowledge which is quickly superseded.

Although the application of the process of problem solving is perhaps most clearly defined in medicine there would seem to be possibilities of extending the principle to other areas such as engineering.

On a smaller scale Moss and McMillen (1980) describe how first year undergraduate students were given a problem about Australian-Asian relations which involved developing arguments for and against a policy. Work was done in groups of 20 often without staff direction over a four week period with final policy presented at a plenary session. One feature of the exercise was the high student interest which was maintained throughout. In spite of the success of the activity it was felt that students required more training in both problem analysis and the critical evaluation of the solutions proposed, in other words, further development of the process of learning.

Process Goals As part of a part time Masters course on management Huczynski and Boddy (1979) set up a learning organisation to involve students in the planning and teaching of the course. They also encouraged the setting of 'meta' or 'process' goals such as 'ability to make sense of and critically evaluate academic literature relevant to management practice'. They found that learners first needed to be dependent on the teacher, then counter dependent before moving to a position of independence. They believed in spite of the possible negative effects on innovation imposed by working in a traditional environment there were opportunities for change and ambiguities in the regulations which could be exploited to the full by potential innovators.

Independent Study is a process of learning where the emphasis is on self direction and control of learning and where individuals are able to pursue the study of subjects not covered by conventional courses. The concept thus has strong roots in the principles of learning of Carl Rogers mentioned earlier in the paper.

There are many examples of independent study on a small scale as a part of a degree course e.g. see the description of the scheme at Murdoch University by Marshall (1980) and in a much larger programme at Empire State College, New York and at Lancaster and North East London Polytechnic recently evaluated by Percy and Ramsden (1980).

Independent studies do raise philosophical and epistemological issues about the possibilities of ignoring the store of accumulated knowledge in the literature and having a very narrow biased view of a subject. These objections however, can be overcome by suitable validation procedures by the University.

Clearly for some students this mode of study is ideal but there are warnings from experience. Thus Cowan (1978) felt that the independence is best given to students gradually and it is still necessary to give direction. Furthermore freedom in learning is not necessarily desirable in all circumstances and can be very inefficient at times. Percy and Ramsden note that later developments at Lancaster and North East London Polytechnic show a move from spontaneity to more structure.

Experiential Learning involves learning from the first hand experience of the learner rather than from vicarious second hand learning usually experienced in classroom. Boud and Pascoe (1978) point out that experiential learning is not a new educational procedure but involves a new look at the 'perennial question of what makes an activity an effective learning experience'. It is thus very much a process of learning which is concerned with effective learning. It is only recently

that experiential learning began to be recognised in post secondary education and it is to be hoped that the work described by Boud and Pascoe and the considerable experience of the CAEL group in the United Statesof America will encourage further development.

CONCLUSIONS

It is the thesis of this paper that the call for accountability can be met by improving the quality of graduates by placing more emphasis on the process of learning. This is in itself should have an important feedback on research in universities since graduates should be better prepared for research by being better problem solvers and independent learners. Since university staff are by and largely more interested in research than other aspects of their work in their institutions this should be a powerful incentive for them to try more process oriented teaching. Lastly, the community at large can only benefit by improved research in universities. For these reasons I believe this is a change worth trying.

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Issues in tertiary teaching: The use of cognitive development models to guide teaching method

K. Mason

This paper argues for the need for administrators and academics in tertiary institutions in Australia to become conversant with developmental theories applicable to late adolescents and young adults. One such theory, the cognitive developmental scheme developed in the United States by William Perry, is presented, and a teaching methodology which attempts to promote development along his scheme - "Developmental Instruction" - is described. The relevance of this approach in the Australian context is discussed with particular reference to the degree of responsibility taken by Australian academics for student learning, and to the achievement or non-achievement of some often-stated goals of higher education.

WILLIAM PERRY'S COGNITIVE DEVELOPMENT SCHEME - BACKGROUND

The impact of cognitive development theories in primary and secondary classrooms has been significant, with the most notable applications being those derived from Piagetian theory. However, while the work of researchers such as Erikson and Kohlberg has pointed to important personal, social and moral issues still to be resolved in young adulthood, it has been assumed by most academics that intellectual/cognitive development is all but complete by age 16 or 18. It has thus not been considered necessary to cater to any notions of stages of development in the presentation of intellectual material at the tertiary level.

William Perry's work with students at Harvard University casts doubt on this assumption. He and his associates studied the intellectual and ethical development of undergraduate students and proposed a model or scheme which describes these changes. They found that students varied in the degree of simplicity or complexity of their view of the world of knowledge, and consequently of their approach to learning. The thinking of students in the early stages of the scheme (dualism, multiplicity) was characterized by rigidity, dependence on authorities for "right answers", and an inability to accept the legitimacy of viewpoints, lifestyles and values at variance with their own. At later stages (relativism) students recognized knowledge and values as relative, and gradually became more flexible in their thinking and open to new perspectives. At the highest stages (commitment), students were aware of the need to make personal commitments in a relativistic world, and were able to take responsibility for this. Perry found that students progressed along the scheme towards greater maturity as they progressed through college.

Between 1957 and 1966 Perry and his colleagues tested their scheme by obtaining longitudinal data on more than eighty students across the four years of college. Data were collected by means of unstructured interviews, which were designed to enable students to describe and structure their experiences in their own ways. These data were then rated in relation to the different positions on the scheme. Inter-rater reliabilities were consistently high. However, despite its appealing

face validity, the scheme remains to be subjected to rigorous construct validation, and problems exist in the development of an instrument to assess the Perry position. These difficulties are not discussed in the present paper. The reader is referred to the reference list for more information concerning the development of the scheme, and for details of a number of assessment instruments currently in use.

Perry's scheme describes the growth of conceptual hierarchies in college students, and suggests that the accommodation and assimilation which characterize the development and elaboration of cognitive structures continues into late adolescence and young adulthood. As such, it is a cognitive developmental scheme, and shares with other theories of cognitive development a number of underlying assumptions:

- that our understanding of the world is organised structurally, and that these structures act as a filter through which experience is interpreted;
- that cognitive growth occurs in a developmental sequence, in which differentiation from simple to more complex forms takes place through a series of qualitatively distinct stages;
- that development occurs through the interaction of the individual with his/her environment.

As will be evident in the following discussion of the theory, movement along the Perry scheme is associated not only with greater sophistication in the ways students think about knowledge, learning, values and themselves, but also with an increasing ability to tolerate ambiguity, and with the development of an internal locus of control, enabling individuals to take responsibility for their learning. These characteristics seem particularly relevant to teaching.

Both Perry's scheme and the instructional methodology which will be presented below are rich in detail. Of necessity, much of this has been sacrificed in the interests of brevity and simplicity. The ethical implications of Perry's scheme, for example, and research findings concerning both the scheme and the methodology, are referred to only briefly. The provision of a reference list is designed to remedy these omissions.

THE PERRY SCHEME

The scheme contains nine positions which can be grouped into the following levels: Dualism - Positions 1 and 2
Multiplicity - Positions 3 and 4
Relativism - Positions 5 and 6
Commitment - Positions 7, 8 and 9.
The main characteristics of each level will be outlined first, and then a brief sketch of a "typical" student at that level will be presented.

Dualism: Positions 1 and 2

Assumption: the world is divided into dichotomies. At a general level: We - Authority - Right versus They - Wrong. Students assimilate diversity and complexity into this dichotomous structure.

1. Students view the world of knowledge in narrow, simplistic ways.
2. They cannot accept diversity/ambiguity (e.g. in English) as legitimate - it has to be explained away.

3. Answers are either right or wrong - "better/worse" refers to quantity (more facts) rather than quality (judgment).
4. Authority's (the teacher's) role is to teach the Truth; the student's role is to passively accept it.
5. Learning = an information exchange - the student acquires an increasing number of discrete pieces of knowledge through hard work and obedience.

Later

1. Diversity/complexity is perceived, but it is seen as something teachers make us "work on", so that we learn to find "the answer" for ourselves; i.e. multiplicity, (e.g. the existence of multiple answers), is a mere procedural impediment - resolvable, and therefore ultimately unreal.
2. There are "good" and "bad" Authorities - ones who clearly present the Truth, and ones who unnecessarily obscure it.

The student at this level will:

- expect lecturers and tutors to know answers and to teach them;
- see his/her role as to passively receive knowledge; he/she may be fairly quiet in tutorials - student peers are not seen as Authorities, and discussion may not seem to have a "point";
- consider teachers who debate theories or give interpretations of events to be "waffling";
- feel confused when asked to give his/her opinion or evaluation;
- write essays which tend to be factual and to lack integration (e.g. the relationships between and among points may not be grasped).

Multiplicity: Positions 3 and 4

As these two questions are quite distinct, they will be dealt with separately. The cognitive structure is still dualistic, but some complexity is given status.

Position 3

1. Different ways of seeing and doing things are perceived - multiples.
2. Diversity is experienced in terms of quantity.
3. Uncertainty is accepted in areas where Authority "hasn't found the answer yet" (e.g. literary criticism).
4. Students imitate Authority's process of probing and of looking at both sides of the question - this is "the way they want us to learn".
5. Students are concerned with issues of evaluation - how do Authorities pass judgement in areas where there is no right answer?

The student in position 3 multiplicity assumes that more work and more facts should result in better marks. The facts may even be listed for you! There is a general concern with evaluation, and he/she may be particularly upset when "crammers" do well in assignments. He/she may compare assignments receiving different marks, asserting that both contain "the same points", but ignoring qualitative differences in the way the points are presented and related. Learning is a procedural game, and students will listen carefully to discover "how" you want them to learn. The confrontation with diversity as a quantity issue manifests itself in concern with the amount to be learned, the number of pages to be read and the length of assignments.

Position 4

At position 4, diversity and uncertainty are recognised as extensive. Two different personality types manifest themselves - the adhering (or conforming) personality and the oppositional (individualistic) personality.

The Adhering Personality

1. These students go along with the way Authority "wants us to think".
2. They learn skills of relativistic/critical thought within the context of "what They want".
3. This rehearsal facilitates genuine independent thought.

These students are keen, conforming, careful and submissive. They may in fact be too dependent on the instructor in accepting "how to" learn. Bright students catch on quickly and copy "independent-like" thought.

The Oppositional Personality

1. These students believe that there are Truths, and there are whole areas of uncertainty in which "everyone has a right to his opinion."
2. They pit their views in these areas against Authority's.

The oppositional student attains his/her identity through bumping up against Authority, rather than by "going along" with it. Such students argue points and issues wherever possible, demand justification of all that teachers say or do, and complain when assignments are marked down for "lack of evidence" (because, after all, they've given their opinion and what right do Authorities have to challenge it!).

As students advance through multiplicity, the distinction between an opinion and a supported opinion gradually becomes more explicit, but deep down, beliefs in right answers and right ways of doing things persist. However, eventually the dualistic structure becomes too unwieldy to accommodate to the extensive diversity and complexity which is perceived.

Relativism

The world is seen in very different terms with the onset of relativism. This may come about through cramming, where lack of time forces students to look for "wholes" and relationships, rather than discrete pieces of information. Oppositional students, by continually asking for reasons, may be forced into giving them themselves.

Relativism - Positions 5 and 6

A "cognitive flip" occurs. Contextual relativism becomes the overriding structure, with dualism a "special case", and notions of right and wrong are seen to have meaning only in context.

1. Detachment becomes possible, and is accompanied by an increased ability to think abstractly, to examine one's own thoughts, to analyse concepts and to weigh evidence.
2. New feelings of competence, expansion and openness are experienced. Students can see "what it's all about".

3. They gain the ability to ask for help without a false sense of pride, and discover that they can disagree with authorities and still be respected.
4. Students realize that "we're all in the same boat" - authorities are just trying to make sense of it too.
5. There is an awareness of being alone without the old signposts (certainties), which leads to a need for "community".

Position 5 students bask in diversity and fear narrowing their opinions. Position 6 students foresee the need to make personal commitments in order for diversity to become manageable.

Students in relativism are now able to take responsibility for their own learning, and for structuring it themselves. The management of studies becomes easier. Such students are responsive to theories, interpretation and different points of view, and their essays show more integration, and an understanding of the relationships among phenomena. Students become more at ease with themselves and with others, and as they begin to see other people's views as legitimate, real empathy becomes possible. At position 6, students may feel an urgency in needing to act to make commitments, even though all the facts are not known.

Commitment

The commitment stage describes an exploration and confirmation of identity within a complex, relativistic world, rather than a further elaboration of cognitive structures. In the commitment phase, the student turns his/her understanding of complexity back on him/herself. This leads to the careful examination of the content of commitments (career, spouse, values), and of stylistic issues concerning how I will be "an adult" in the world. Themes within oneself are explored and priorities set. Perry considers "commitments" to share the following characteristics:

- they are active choices demanding personal investment;
- they constitute acts of faith, accompanied by doubt, detachment and the awareness of legitimate alternatives;
- they require the acceptance of responsibility in choosing, and the recognition that one may have chosen differently, and that others can legitimately choose options different to one's own (i.e. we don't all have to do the same things in the same way).

At position 7, initial commitments are made (e.g. to undertake graduate study). At position 8, the implications of these commitments are explored (e.g. how to be a graduate student, the lifestyle to be adopted, etc.). In position 9, the individual is aware that life is a process of making commitments.

Final Points Concerning the Scheme

Evidence suggests that individuals can be at different positions on the scheme with respect to different issues, (e.g. history as a discipline versus morality). In other words, the notion of décalage from Piaget's work is relevant, and the extension of complex modes of thinking across different areas is important. The notion of "regression under threat" is also applicable. New students entering tertiary institutions tend

to exhibit dualistic tendencies, as do mature-age students (who can, however, "bounce back" to higher levels fairly quickly). Graduates entering new disciplines (e.g. in Graduate Diploma courses) may also initially exhibit characteristics of students in dualism (reliance on Authority, a concern with "right answers"), even though they may be at higher levels of thinking with respect to disciplines studied in their undergraduate degrees. Finally, while Perry asserts that the "impulse for growth" is powerful, some students have been observed who seem to avoid growth, at least for a while (see Perry, 1970).

Educational Relevance of the Perry Scheme

In the previous sections, I have attempted to link the theoretical assumptions of the scheme with characteristics of students relevant to their learning, and hence to the ways in which they are taught. However, there are a number of transition points along the scheme where the nature of the educational intervention may be especially critical in fostering/retarding cognitive growth:

Dualism to Multiplicity/Relativism

As students initially experience diversity and complexity, they need support to allay anxiety, and help in the making of conceptual connections.

Multiplicity to Relativism

Teachers are often misinterpreted in multiplicity as the judgement involved in "receiving marks" is felt very personally. Marking needs to be explained to students.

Relativism to Commitment

Teachers need to encourage and enable students to accept the personal responsibility required in making commitments despite uncertainty.

DEVELOPMENTAL INSTRUCTION

This teaching methodology was developed by Lee Knefelkamp, Carole Widick and Clyde Parker at the University of Minnesota, and constitutes one response to the teaching challenges posed by Perry's scheme. The model seeks to provide a series of challenges to students' current belief systems, while providing supports so that development is not overwhelming. In other words, the model takes into account "where students are" in terms of cognitive complexity. Knefelkamp, Widick and Parker assume that tertiary teachers must take responsibility not only for delivering their message (e.g., teaching within a discipline), but for ensuring that it is received (heard and understood). To do this, one must not only have a detailed understanding of important student learner dimensions but possess the technical skill with which to apply this understanding to teaching method. Reasoning that movement along the Perry scheme is consistent with acceptable goals of Higher Education, they have developed a teaching methodology which both recognises the rigid, dichotomous thinking of beginning tertiary students,

and seeks to loosen it. Their methodology, "Developmental Instruction", aims to teach students knowledge and skills and to promote higher Perry cognitive levels, through the manipulation of four instructional variables - degree of structure, diversity, experience and personalism. Briefly, these variables can be defined as follows:

Structure. The extent to which what is to be learned, how it is to be learned and how it is to be evaluated are: outlined clearly in advance, presented in an order of increasing conceptual difficulty (with the processes of learning spelled out explicitly), and are primarily the responsibility of the instructor.

Diversity. The extent to which the content of learning tasks (different theories, novels), the means of presentation (lectures, films, discussion) and the means of evaluation (oral presentation, essays, exams) are heterogenous and multifaceted, involving a range of different activities and perspectives.

Direct versus vicarious experience. The extent to which material to be learned is experienced directly (e.g., in the labs, in the field, through personal experience and by doing it), or vicariously (in books, via lectures/discussions about it).

Personalism. The extent to which the classroom becomes a community in which the sharing of experiences among teachers and peers, and individual differences are valued. This concept owes much to Carl Rogers' concept of unconditional positive regard, and to the notion that material will best be learned by students if it is related to issues which are personally relevant to them.

While none of these variables (with the possible exception of the last) is new in itself, their concurrent manipulation, and their matching to student cognitive level, are both new and exciting. The model outlined in Figure I indicates the way in which these four variables can operate as challenges and supports to students in dualism and in relativism, and should be referred to throughout the subsequent discussion. The combination of challenges and supports for students in multiplicity is not included, but would fall somewhere between the two.

THE MANIPULATION OF THE FOUR INSTRUCTIONAL VARIABLES - EXPLANATION AND RATIONALE

1. Structure

For dualists: a high degree of structure is necessary so that they are not overwhelmed by diversity, and have clear parameters within which to learn and to explore diversity and complexity. For example, if dualists are asked to discuss an issue among their peers (which is threatening), they need to be told exactly how to do it (e.g., how to give constructive feedback - the teacher may need to model this, etc.). Essay topics need to be limited and definite, with a clear explanation given of what is required.

Rationale: Dualists tend to be passive in their approach to learning, to look to Authority to teach, and to be unable to structure learning for themselves.

For Relativists: Students in relativism can make connections, relate to their peers, and structure learning contextually for themselves. Therefore the structure can be looser. For example, the requirements for an essay can be given in less detail, leaving room for students to approach the task in different ways, and to take responsibility for choosing an approach (dualists find this very threatening).

Manipulation of Structure: Structure needs to be gradually loosened, so that dualists are eased into a comfort with uncertainty and are encouraged to be more active in their own structuring, and in taking some responsibility for what happens in the class and for their own learning.

2. Diversity

For dualists: As students in dualism don't see diversity as legitimate, it needs to be introduced slowly, and within structured guidelines, to chip away at notions of right ways of doing things/right answers. For example, essays, exams and oral presentations may all be used as assessments, and shown to be legitimate alternative ways of demonstrating learning. It is particularly helpful if the instructor provides a structured process for exploring in diversity (e.g., one framework, within which several different theories can be examined). This needs to be made explicit, so that the dualists can learn to make connections.

For relativists: Relativists are comfortable with diversity but may need help in making commitments. One might, for example, ask them to take one side of an issue and argue it, rather than to consider all sides.

Manipulation: Increase diversity in teaching and learning method and content, to increase/reinforce awareness of the legitimacy of alternative viewpoints/approaches (but this must be done within a context of support).

3. Direct Experience

For dualists: Dualists have trouble detaching, standing back and using abstract thought. They have particular difficulty in making connections between abstractions. They tend to operate at a more concrete level. Reading is both abstract and vicarious (involving identification with unknown situations). Direct experience should be used where possible, and bridges between concrete experience and abstractions need to be provided (links). Role-playing (where appropriate) is a useful tool in making learning real. Jonathan Miller's programme "The Body in Question" is an excellent example of the use of teaching aids and links between direct personal experience and sophisticated abstractions.

For relativists: Relativists can think abstractly, juggle concepts and make connections, so vicarious experience is appropriate and can be utilised effectively by them.

Manipulation: Increase the diversity of direct experience, and gradually introduce more vicarious learning.

4. Personalism

The need for a sense of community in the classroom is based on the assumption that learning is ego threatening.

For dualists: A sense of community and feeling of support is necessary so that the confrontation with diversity and complexity is not overwhelming.

For multiplicists: Students need to see the possibility of learning from peers - oppositional students need to become more interdependent; adhering students need to become more independent from teachers in their learning.

For relativists: A sense of community, that "we're all in the same boat", can counteract the sense of aloneness when old certainties disappear, and can encourage personal responsibility in the making of commitments.

Manipulation: Personalism should remain high in teaching. It can be facilitated by the encouragement of personal discussion, and by the affirmation by the teacher of "where students are" cognitively and personally. For example, the lecturer can acknowledge that some tasks given may be experienced as very difficult and/or confusing (e.g. to dualists). In some classes, the use of student log books, which are responded to individually by the teacher, can enable explicit acknowledgement of the student's experience, and act as a powerful support in the learning process.

Final Points Concerning Developmental Instruction

In Developmental Instruction, the four variables described above are manipulated not just over a course as a whole, but within each class period. To plan and teach a course with this degree of care demands enormous energy, understanding, creativity and a serious commitment to teaching. Findings from courses in the United States taught using Developmental Instruction have consistently shown very high levels of student satisfaction, high levels of content learning and significant (although small) amounts of cognitive growth as described by Perry's scheme. Similar classes taught in the traditional manner do not achieve the same degree of cognitive growth.

THE AUSTRALIAN CONTEXT

There appears to be a striking compatibility between development along the Perry Scheme and often-stated goals of Higher Education - in Australia and elsewhere. As in Perry's model, these goals tend to

refer not to specific knowledge and skills (content), but to the way in which educated people evaluate information. Goals such as the ability to critically examine evidence, to analyse and synthesize information, and to understand and appreciate the diversity of viewpoints in the intellectual arena, are all examples of thinking processes, relevant across a variety of content areas. If these goals are to be paid more than lip service, however, a conscious attempt may need to be made by academics not only to impart knowledge, but to foster students' cognitive development so that they are able to understand and to operate on information at complex cognitive levels.

A case can be made that good tertiary teachers do much of this "naturally" and that good students "naturally" acquire the skills of critical thinking. But what of these who are not "natural" teachers or students? On the teaching side, a number of assumptions operate in this country, which make the provision of good tertiary teachers fortuitous, rather than deliberate. These include:

- the assumption that in-depth knowledge of a discipline is sufficient to make a good tertiary teacher;

- the consequent assumption that academics (unlike primary and secondary teachers) do not need training in teaching methods;

- the assumption that "academic freedom" legitimately extends into the classroom, so that most of us have little idea of how well our colleagues teach;

- the assumption that research, publication and related professional activities are the main achievements of the good academic, leading to a reward system in which teaching excellence receives minimal, and never exclusive, weight.

At the very least these assumptions need to be questioned.

On the student side, while it may be that in the past universities admitted an élite group of students who came from "good" schools (which had presumably already taught them to think critically and so on), this does not appear to be the case today. We are, in fact, moving closer to an American "open admissions" policy, in particular with respect to mature-age students.

The Perry scheme is one model which addresses the thinking processes of tertiary students, and Developmental Instruction is one teaching methodology which attempts to promote their development. While research is needed to confirm their applicability in Australia, and while they may need to be adapted to Australian education, these models appear to be saying things of importance relevant to:

- today's students;

- the training and effectiveness of tertiary teachers;

- the achievement of the goals of Higher Education

CONCLUSIONS

It is my belief that more attention should be paid to giving tertiary teachers an understanding of student characteristics relevant to their capacity to learn and to making explicit the principles of good teaching, so that they cease to be the exclusive preserve of the gifted, and became accessible to the ordinary academic. The Perry scheme, and Developmental Instruction, would seem to have a place in this process.

There are clearly ethical issues involved in intervention techniques in the tertiary classroom which are specifically designed to promote cognitive growth. It can be argued, however, that failure to do this, and to attend to student cognitive characteristics, constitutes an avoidance of responsibility on the part of academics and administrators, many of whom espouse "process-oriented" goals, but ignore ways of achieving them. If we value independent thought, then we must take responsibility for enabling it - to do otherwise may well constitute negligence.

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ACKNOWLEDGEMENT

My involvement with the work outlined in this paper occurred during my Masters degree study in Counselling at the University of Maryland between 1976 and 1978. I wish to acknowledge here my debt to Dr Lee Knefelkamp, whose inspiration and guidance have contributed greatly to my understanding of the development of College students, and to my interest in tertiary teaching.

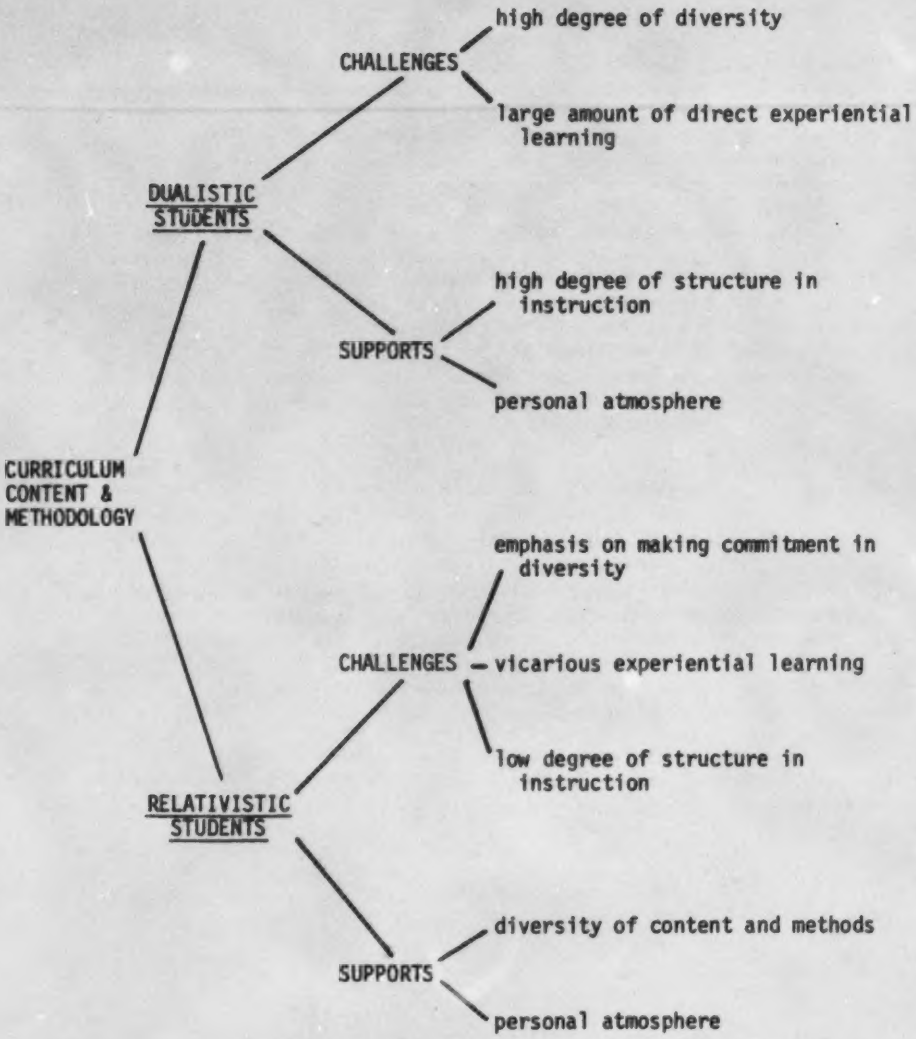

FIGURE 1: DEVELOPMENTAL INSTRUCTION - CHALLENGE AND SUPPORT MODEL

(From: Knefelkamp/Widick, 1974)

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The self-directed learner: An undiscovered species?

V.A. Brown

Assumptions dominant in current higher education research include (a) that self-directed learning is a good thing; (b) every effort should be made to encourage it and (c) teachers of adults should take full cognisance of individual learning styles.

If we combine these three propositions, it follows that the more we understand the range of individual approaches to self-directed learning, the better. In this paper, personal and behavioural correlates of students' desires for independent learning are identified and discussed. The population described is 750 first and second year students enrolled in Arts and Science faculties at the Australian National University. A shadowy picture emerges of the self-directed learner as a distinctive type on campus.

Most of us who are interested in teaching adults are familiar with the idea that independence of thought, self-direction and satisfactory learning are inextricably linked. (Rogers, 1968; Knowles, 1970, 1975.) Writers such as Perry (1970) and Entwistle and Wilson (1977) have helped to identify some of the general characteristics of the adult learner and the types of environment that helps him learn. Courses in which the teaching is directed towards independence for the student have shown us the possible extent of self-direction under the best conditions. As well as the traditional homes of the academically elite, such as at Oxford, Cambridge or Harvard, other institutions that encourage self-direction are McMaster Medical School in Canada and the courses of Liberal Studies in Science at Manchester and Environmental Studies at Green Bay - Wisconsin. In large sections of these courses, students are fully responsible for selecting the problems to be studied and the methods of studying them, including taking charge of their own field work.

The very success, recorded in evaluations of these programmes (McQuire and Page, 1973; Jevons, 1975; Abeles, 1973), poses a problem for teachers when procedures for self-direction are less clearly laid down. Recent work has shown the rich variety of learning stragegies employed by adults (syllabus-bound and syllabus-free, Parlett, 1970; holist and serialist, Pask, 1976; surface and deep, Marton and Saljo, 1976; specialist, generalist and holist, Brown, 1978). Findings by Barron (1955), Abercrombie (1972) and others, show that the best performance occurs where the learning environment matches the strategy which the student favours. This strategy may spring from personality type or a previously successful experience.

A further important distinction can be made between a learning strategy, which a student can employ according to course conditions, and a learning style, which is a more fundamental reflection of the student's personality (Pask, 1976).

If self-direction is accepted as a guiding principle for all adult learning, then the organisers of adult learning environments need to recognise both the diverse ways in which each individual can approach

the task of learning something new, and the initial level of self-direction the student brings to the course. Those who do not wish to be self-directed require quite different teaching strategies and environments from those already able to direct their own learning; and the personal style of the student will provide an important influence in either case.

We can expect that programmes such as those at McMaster or Manchester will attract candidates predisposed towards and successful in self-directed learning. While evaluations of their success show just how rewarding self-directed learning can be for its practitioners, what of those students who do not want to be independent and who have always been and wish to continue being 'spoon fed'? And consider, with sympathy, the staff member who wishes to introduce, on the best of recent research authority, a self-directed segment in an otherwise authoritarian programme! Those of us who have tried know how quickly the group divides into those who are delighted, those who wait with forbearance to see how it all turns out, and those who, if they can, promptly withdraw from the class. Pirsig (1974) gives us an imaginative account of this phenomenon, in describing the response of a class in English literature to complete freedom for creative writing.

It would be useful for the designer of any programme in higher education to be forearmed by being able to identify characteristics linked with independence and self-direction. Clearly, teaching methods which suit, or encourage these characteristics, should be included in the course design.

The literature already provides some information on personalities which can be expected to show independence in learning. Co-variates of the open mind (Rokeach, 1960) are clearly pertinent, as are the characteristics of the student-action groups in the American universities in the sixties, which Beach (1974) found were linked to self-directedness. Tough (1971) has also described the self-directed learner in action, but not how he or she can be distinguished from the general population. Altogether, there is enough evidence about to suggest that a self-directed learner may be a distinctive type of student.

In 1974, at the Australian National University, I had the opportunity of surveying, interviewing and observing undergraduates who were enrolled in the first and second years of general Arts and Science degrees (Brown, 1978). During my inquiries, I asked questions relating to the students' wish to be self-directed. The answers were then related to personality measures, attitudes to study, and academic performance.[1] From this material, I draw some conclusions as to the characteristics of a self-directed learner, and about some teaching strategies which develop those characteristics. In other words, I describe some further identifying marks of this interesting species, and some aspects of the environment in which it flourishes.

THE SELF-DIRECTED LEARNER

Learning Strategies

In my study, a student was considered to be self-directed if he was prepared to identify a topic which he wishes to pursue, and to select and integrate evidence which bore on the topic. Self-directedness was measured by the number of independent study methods the student was prepared to use, and the degree to which he actually used them.

In most courses in higher education, students are free to seek expert advice, read books or research journals, discuss work with fellow students and use their own observations and judgment. Accordingly, the degree to which a student was self-directed in a particular unit was estimated from positive answers to the following questions:

- Would you like to pursue your own (academic) interests in this unit?
- Do you wish to take part in library research?
  in group projects?
  in leaderless discussion groups?
- Do you expect to enjoy this unit?
- Would you like teachers to ask questions and lead discussion, rather than give information?
- Would you like students' opinion to influence the organisation of the course?
- Would you like teachers to direct students closely?

(The response to the last question was, of course, scored in reverse.)

These questions were distributed among others that asked about references for a range of teaching and learning activities. The first surveys were completed by the students at the first class of the year, so that there was as little as possible 'set' provided by the staff of the units. 750 students were studied in nine units, four of which were in Science, two in Arts and three in Human Sciences. Two of the Human Science and one of the Science units included student self-direction in course objectives. The responses given before the courses were indicated on a three-point scale (Yes, Sometimes, No) and were summed to give individual scores for self-direction. High aggregate scores for self-directed learning were correlated with the characteristics shown in Table 1 ($p < 0.05$ in each case).

At the end of the academic year the same questions were asked in retrospect: for instance,

- to what degree were you able to pursue your own interests in this unit?

The answers were given on a five point scale, from 'very much indeed' to 'not at all'. The responses were collated and a correlation matrix again calculated, this time (using PStat programmes) with retests of the same attitude scales as before and some descriptions of course processes. The characteristics, and their degree of correlation with the experience of being self-directed in the unit concerned are shown in the second column of Table 1. Even small correlations, when statistically significant, throw some light on preferred strategies.

It was no surprise to find that students who sought to be self-directed were those who, according to their own estimation, succeeded in being self-directed ($r = 0.65$). This was in spite of an environment where only three of the nine courses actually included student self-direction among the course objectives. More interesting, self-directed learners were much more likely than those who were not self-directed to be wanting a broad understanding of a topic, and to become aware of current issues. Other differences were smaller, but still of interest. The more self-directed students were likely to be only slightly biased towards Arts as a source of evidence, and against Science, to be independent of social judgment rather than dogmatic, and to be tolerant of ambiguity. The reliability of this description is confirmed by the degree to which these characteristics were maintained over the year.

Thus a course designer may be able to identify his more self-directed learners by their interest in an overall understanding of their topic, in topics relevant to current issues, encouraging a broad understanding, and providing a wide range of contributing evidence.

Personal Characteristics

The scores for self-directedness, both before and after the courses, were analysed in relation to characteristics which have been shown in previous studies to affect student responses and performance. Before beginning the courses, only the choice of faculty and the sex of a student affected their desire for self-directed learning and that only slightly, accounting for 3.4% and 1.9% of the variance respectively. The would-be self-directed learners were evenly distributed across ages and academic ability, as can be seen in Table 2.

At the end of the courses, we find a different pattern. Those who had enrolled at university for personal independence (2.2% of variance), females (4%), older students (8%) and more advanced students (5.3%) were somewhat more independent than the rest. Those who had chosen self-directed type units were much more likely to consider they had achieved self-direction (32.9% of the variance). In short, while older students appear to have an advantage over younger ones in making the most of freedom, the biggest factor apart from the student's learning style was the manner of presentation of the units themselves.

LEARNING ENVIRONMENTS

It was possible to match the scores for self-directed learning with a measure of the extent to which the course objectives and methods permitted student independence. The units were classified into high, medium and low in opportunity for students to work independently. Table 3 compares the students' expectations and experiences of the units with the degree of self-direction the units provided.

Clearly, there was a self-selection factor operating here: most self-directed learners enrolled in the courses with appropriate objectives (Table 3, A). There was an equally marked drift of non-self-directed learners to highly directed courses. Students certainly found what they came for at either of the two poles (Table 3, A and C): but in spite of the high number who wished for self-directed learning in the intermediate group of units, they were clearly unable to obtain it to any marked degree. Hence, there was a limit to the amount of self-direction attainable; a limit set by the teaching environment, not by the aspirations of the students.

On the other hand, even where there was a high expectation of self-direction, expectation was exceeded when self-directed learning was actively encouraged.

From the middle column of Table 3, one might suppose that in the intermediate units there would be many dissatisfied or frustrated students. Such units, with student expectations unidentified and unmet, could be an unrewarding experience for staff and students alike.

More precise evidence of links between individual teaching methods, student satisfaction and student performance came only from the three most self-directed units. In these the correlation coefficient between the academic mark for the unit, and the degree of self direction achieved was 0.30 ($p < 0.01$). Individual methods which proved highly successful with self-directed learners (both with regard to academic marks and student satisfaction) were the following:- (a) a course of lectures with highly controversial themes and the presentation of conflicting viewpoints (b) the provision of spirited interdisciplinary discussion in an otherwise highly structured course and (c) the opportunities for field work outside the campus, in an otherwise theoretically-oriented course.

Two conclusions follow: (a) that successfully self-directed learners are also successful academically, as well as finding satisfaction from their work, and (b) a wide variety of teaching methods can provide an environment conducive to independence.

SEARCHING FOR SELF DIRECTION

Self-directed learners are perhaps born as well as made. The findings above suggest that people who wish for knowledge to be useful and relevant to current issues, who seek a broad understanding of a

self-chosen topic, who have no marked bias toward Arts of Science, and who are independent of judgment rather than dogmatic, also wish to be independent in their approach to learning (Table 1). But there is evidence that the wish and the will to be independent are not enough, and that, while age and standing in the institution are a help, the method by which the teacher presents material is an important factor in whether a student actually achieves independence (Table 2). Finally, it would appear, in some units at least, that the more self-directed the student, the greater the academic success.

The picture is still blurred and further work needs to be done. But there do seem to be some morals here for teachers of adults. Any teacher who assumes all students to be equally self-directed or equally docile, is in error. In many cases, we habitually underestimate the extent to which a student is willing to be and capable of being independent. We also tend to ignore the range of differences between those who do, and those who do not seek self-directed learning. A diagnostic process, which includes the characters described above, would help.

Since fear, anxiety, invocation of authority and the pressure of external assessment hardly provide a favourable environment or an encouraging model for self-direction, the teacher of adults needs alternatives to these traditional stimuli. The findings of the present study suggest that more suitable incentives include the following: (a) maximum opportunities for independence (including following research papers, undertaking independent projects, and taking part in free group discussion). (b) controversial and conflicting views should be presented, (c) knowledge should be related to its application in the world outside the institution.

Since adult learners are not irrevocably fixed in any one learning strategy but can respond to their environments (Laurillard, 1979) and the teacher's personality type (Entwistle, 1977) an important step in curriculum design is to relate degrees and modes of self-direction, first to the various learning styles and learning strategies already described in the literature, and second, to existing teaching styles and environments.

NOTES

1 Scores for these student attributes were arrived at as follows.

A broad understanding: responses to three questions on inter-disciplinary discussion, breadth of coverage, and integration of evidence.

Bias towards Science and Bias towards Arts: Each based on 10 questions related to the importance of Science and Arts training respectively. Validated and trialled by Iliffe (1968) at Keele.

Awareness of Current Issues: responses to four questions on the student's goals at university, and in the community.

Independence of Social Judgment: a twenty-question scale derived by Barron (1963) to identify people "receptive to new ideas, enjoy uncertainty, and prefer imperfections and contradictions which challenge the understanding".

Dogmatism: a scale with nine questions which tests the extent to which a person interprets events in terms of preconceived ideas (Anderson and Western, 1967).

Intolerance of Ambiguity: a 16-item scale constructed by Budner (1962) to identify the degree to which a person perceives "situations characterised by novelty, complexity or insolubility" as desirable or a source of threat.

TABLE 1. Correlations between students' learning strategies and degree of self-direction.*

LEARNING STRATEGIES	SELF-DIRECTION DESIRED[1]	SELF-DIRECTION ACHIEVED[2]
	n = 775	n = 600
A broad understanding	0.38	0.63
Bias towards Arts	0.1	0
Bias towards Science	0.09	-0.18
Awareness of current issues	0.32	0.38
Independent judgment	0.12	0.28
Dogmatism	0.22	-0.3
Intolerance of Ambiguity	-0.12	(not repeated)

* Pearson product-moment correlations; $p < 0.05$.

1. Scale-scores compiled at start of course.

2. Scale-scores compiled at close of course.

[Overall response rate equals 81%]

TABLE 2. Association between students' personal characteristics and degree of self-direction - % variance.*

PERSONAL CHARACTERISTICS	SELF-DIRECTION DESIRED[1]	SELF-DIRECTION ACHIEVED[2]
	n = 775	n = 600
Reason for University enrolment - personal independence	0	2.2
Academic entry level	0	0
Age	0	8.0
Sex	1.9	4.0
Faculty choice	0	1.8
Year of course	0	5.3
Enrolment in self-directed unit	3.4	32.9

* Strength of association calculated as % of variance where $p < 0.05$ in a one-way analysis of variance.

1. Scale-scores compiled at start of course.

2. Scale-scores compiled at close of course.

TABLE 3. Scores for self-direction, in relation to the degree of independence encouraged in the unit.

SELF-DIRECTION OF STUDENT	DEGREE OF INDEPENDENCE IN UNIT		
	HIGH(A)	MEDIUM(B)	LOW(C)
	n = 124	n = 177	n = 281
Students' expectations of independence - Summed responses	19.38	19.39	18.88*
Students' experience of independence: Summed responses	24.89	24.15*	23.62*
Gains from free group discussion	2.25	1.84*	1.64*
Gains from independent projects	2.48	1.29*	1.42*
Gains from library research	3.08	3.20	2.55*
Enjoyment of unit	4.11	3.55*	3.40*

*Group differs from Group A ($p < 0.01$).

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Freedom to learn: Designing courses for students rather than teachers

J. Powell

Five basic educational principles are recommended for the guidance of teachers when designing or reviewing their courses. These are: (1) that students should learn more than their teachers; (2) that courses should engage students in a wide range of intellectually demanding activities; (3) differences between students should be fully acknowledged; (4) learning should be enjoyable, rewarding and personally meaningful; (5) teaching should focus upon knowledge and values likely to be of enduring significance to the student. The paper concludes by illustrating the application of these principles to a postgraduate course.

When we design, or re-design, our courses we are presumably guided by some very general principles which embody some of our basic ideas about the nature of education and what it is that our students should learn as a consequence of our teaching. In this paper I shall attempt to make explicit some of the fundamental principles which I believe should inform all course design activity in higher education. I shall then, more briefly, outline attempts to embody these ideas in a course which I have been teaching for the past three years.

The principles are the following:

1. Students should learn more than their teachers. This sounds so obvious as to be scarcely worth saying but our courses are often so designed that the reverse is usually true. In higher education it is the staff who do most of the work: they do most reading, talking, planning, preparing criticising and assessing. As a result they also learn a great deal - more than any of their students. This is absurd. A few years ago I heard a group of students talking after a class (not one of mine) and one of them said: "None of us is going to pass. It hasn't been an education at all -- all he does is talk all of the time."

We all recognise the validity of this first principle when we admit that the best way to learn something is to try to teach it.

2. Courses should require students to engage in a broad range of intellectually demanding activities. Many of our teaching procedures cast students into a predominantly passive role: listening to lectures, obeying instructions in laboratory manuals, carrying out routine procedures designed and assessed by others, sitting silently

in so-called "discussion groups" while the tutor expatiates at length on packaged information already delivered in lectures. This would be undesirable even if the presentations were of a uniformly high quality but far too often they resemble those reported by Charles Darwin (a good example of the survival of the fittest, surely) in his autobiography:

> The instruction at Edinburgh was altogether by lectures, and these were intolerably dull, with the exception of those in chemistry by Hope; but to my mind there are no advantages and many disadvantages in lectures compared with reading. Dr. Duncan's lectures on Materia Medica at 8 o'clock on a winter's morning are something fearful to remember. Dr. Munro made his lectures on human anatomy as dull as he was himself, and the subject disgusted me.

Such techniques of teaching conspire to deny students the opportunity to practise a variety of important skills in the exploration of the intellectual content with which a course purports to deal. We therefore need to seek ways of making such opportunities manifest and at the same time so engage the interest of students that they will be prompted to take advantage of them.

3. Courses should be structured in such a way as to recognise differences between students and to allow them the psychological space within which to explore the subject-matter in a manner which meshes smoothly and productively with their own current level of understanding. The majority of our courses are highly structured and reflect the almost total power of the teacher to control virtually everything which happens during the life of a course. This structure derives from the current understanding of the teacher rather than from that of the students. It is also founded upon the assumption that students, as learners, are very much alike and are learning much the same things. We know however, that this is untrue. In a course with fifty students it is no exaggeration to claim that fifty different courses -- admittedly with a good deal of overlap -- are in progress as each learner responds individually to what is happening and attempts to construct his or her understanding of what it is all about. We should therefore seek to reduce teacher control over courses and create structures which recognise the individuality of learners thereby offering more diverse and richer learning opportunities.

4. Learning should be fun in the sense that it offers an immediately enjoyable and rewarding experience through which the student progressively comes to master complex and challenging material and feels a growing degree of competency in the basic skills of communication, argumentation, hypothesis formulation, problem-solving, interpretation and judgment within the chosen field of study. Much of what we ask students to do is of a boring, routine and trivial character in no way apt for the development of the intellectual powers. Small wonder that they often respond by simply going through the motions of satisfying the appearances in order to meet the minimal requirements of certification without any meaningful engagement in what they are doing and without

learning very much of deep or enduring significance in their own lives. Recently I was talking with a graduate of two year's standing who was contemplating enrolling in a master's programme. She said: "I'm not sure what to enrol for. You see, it is two years since I graduated and I can't remember what courses I was interested in."

When designing courses we should therefore constantly strive to create learning environments which engage students in a manner which has deep personal meaning for them, rather than being overwhelmingly concerned with "covering ground" which is only meaningful to ourselves as experts in the field. What matters educationally is the ground traversed by the student, not by the teacher.

5. Teaching should focus clearly on knowledge, skills, attitudes and values which are of enduring significance to the learner. One of the most striking features of our universities and colleges is the enormous commitment of time, energy and other resources to instructional activities of various kinds. Hundreds of millions of dollars and countless hours of staff and student time are expended in teaching and learning, yet the outcomes are remarkably modest except when measured in such crude terms as output of graduates. The University of Sydney has recently celebrated the production of its 100,000th graduate, but what have all those students taken away with them which has had a significant effect on their personal and professional lives? It would be a matter for congratulation indeed if it could be shown that there was a high correlation between the vast expenditure of teaching effort and significant learning of lasting value.

Unfortunately, this relationship has yet to be demonstrated. Teachers are only too familiar with the melancholy fact that almost all of what is learnt is quickly forgotten. Some years ago I was involved in the task of interviewing applicants for entry to a master's programme who had all completed a post-graduate diploma in the previous year. Very few could give even the most cursory account of the courses which they had taken and scarcely any could name the set texts which they had studied a few months earlier. I soon learnt to abandon such embarrassing questions despite their obvious relevance to the potentiality for future learning.

It seems reasonable to assume that little remains of earlier learning which is capable of exerting an energizing influence after the graduation ceremony has been concluded. The nature of this residue, although it must be confessed that we know astonishingly little about it -- one of the black holes of educational research -- appears to be a mixture of attitudes, values and intellectual skills developed to widely varying degrees. If this is the case, and if this residue is what we value most highly out of all the things which we attempt to teach, then we should design our courses so that they focus much more sharply on both enlarging it and enhancing its quality. We should also seek to make its characteristics manifest while a course is in progress and not be content with such evasions as: "Later in life you will appreciate the significance of what I am teaching you."

So much for an outline of the principles. If we invoke them to examine what goes on in our institutions of higher education even the most hopeful defender of the status quo must surely admit that all is not well and that we could, and ought, to be doing things rather differently.

I now turn to my own experience of trying to embody them in a course which has, admittedly, been free of some of the constraints which we frequently cite as excuses for continuing to act as we have in the past. This course had the following features. Its structure was at a relatively low level. What is meant by that can perhaps best be made clear by describing courses which exhibit a high level of structure. In these the teacher does all the work and takes responsibility for everything which is done by way of syllabus construction, preparation of material, control of classroom processes, setting of assignments and the determination of assessment procedures. By contrast, a course with low structure places a good deal of responsibility for these tasks upon the students and the power of the teacher is thus greatly reduced. It would possess what Aristotle termed "autotelic" characteristics.

The teaching format was that of small group discussion, with presentations by students on topics in which they had a personal interest. The teacher tried to avoid acting as group leader or as an authority figure who knew all that there was to know about the subject-matter. This created space for individual and group initiatives, for the practice of a variety of skills, for the expression of emotions in relation to classroom events, and for the exploration of the meaning of what was being learnt.

Needless to say, a number of difficulties were encountered. For the teacher there was the problem of adapting comfortably to an unfamiliar role. One is constantly tempted to play the expected part of didact, to exercise power and authority in a manner which has negative effects upon learning: to interrupt, to pre-empt or short-circuit what the students are struggling to do, and to worry about that old bogey - covering the ground.

Students have related problems. Most are unaccustomed, after an unvaried diet of conventional courses, to taking responsibility for their own learning and sometimes resent being asked to do so: sitting in lecture halls really is more relaxing even if not very productive. Their group process skills are often extremely rudimentary because no one has taken the trouble, or thought it sufficiently important compared with "covering the ground", to foster their development. Many expect to be provided with a neat package of knowledge which has been carefully prepared by the teacher and elements of which, however inadequately grasped, can be served up in assignments and examinations.

They feel uneasy in the presence of uncertainty and ambiguity, preferring what is clear-cut and pre-determined. Few are accustomed to reflecting upon what they are doing when engaged in a learning task, and almost all are (quite naturally) reluctant to share their feelings about classroom events and the implications of their emotional responses for both their own learning and that of others.

In combination these constitute a formidable set of difficulties, but given goodwill and a willingness to persevere beyond the trauma of the first few meetings and some skill on the part of the teacher, many students come to appreciate the value of this mode of learning. I quote a few of the comments made at the end of the course in 1979 in order to illustrate this.

> This course has given me the opportunity to reflect on my own learning strategies and to be more sensitive to the learning strategies of other students. The interactional, mutual enquiry approach coupled with the humour provided me with a learning experience that will always be valued.
>
> This course has been most valuable for me because I have been able to evaluate my own views of teaching in a free, open atmosphere. I have seen that it is possible for a teacher to be quite non-directive and yet have a profound influence on a learning situation.
>
> I have realised the indivisibility of knowing, feeling and doing and that without feeling and doing, knowledge is useless to me.
>
> I felt I could contribute as much or as little as I wanted in each session without feeling I was monopolizing or pulling my weight. I cleared many of my thoughts on education generally, and my place in it. I am still processing the inputs on assessment, curricula, and other matters we discussed.

I have deliberately cited only positive comments, although not everyone found the course to be a congenial experience, because I wish to conclude on an optimistic and encouraging note. We all pay lip-service to the principles outlined earlier yet often fail to incorporate them into our educational practice. If our educational ideals have any personal meaning for us, rather than merely being banners which we wave at the public to whom we are nowadays alleged to be accountable, then it may help us to reach out towards them if we always bear in mind that our courses are intended to be for the benefit of our students rather than ourselves.

Independent study — A viable option

L. Marshall

Independent Study Contracts (ISC's) for undergraduate students were introduced at Murdoch University in its first year of operation. This paper outlines the philosophy behind ISC's, discusses their practical application and reviews the range of studies undertaken.

Involving students in planning, teaching and evaluating their own programme

M.F. Fogarty

This paper describes a programme that has been designed to involve students in its planning, teaching and evaluation.

Initially, general objectives and broad content areas are set by the lecturer. Then entering behaviours are assessed and this includes an analysis of pre-test results by the lecturer in consultation with students. The findings are used by the lecturer and students to re-specify content and to set specific objectives. The content is organized into modules with a student team (three or four members) being responsible for the implementation of each module, that is, students are responsible for the determination of strategies, the organization of groups, the allocation of time, the allocation of space and the selection of resources. Each module takes a fortnight to complete (two hours per week). Evaluation and subsequently feedback may be categorized under student assessment and course evaluation. The former is mainly the responsibility of the lecturer, but there is some student input. The latter includes an accountability scheme that involves the lecturer, students and consultants.

The programme deals with modern developments in education and, in effect, attempts 'to practise what it preaches'.

1. INTRODUCTION

This paper should be considered under the Conference topic, "Structured Courses and Student Choice."

My first attempt to design a programme that involved students in its planning, teaching and evaluation occurred in 1974 and, to a large degree, was in response to student criticism that though the programme I was teaching was part of the subject, "Modern Developments in Primary Education" and discussed progressive aspects of education, educational change and current issues, there was little in the manner in which it was organised and taught that was innovative or progressive. In fact, it was very traditional.

While I believe that programmes at tertiary level need not necessarily "practise what they preach" about primary education, the two being entirely different fields with vastly different aims, clientele and so on, I nevertheless took the decision to modify the programme so that, as far as possible, it would attempt to teach by example.

"Modern Developments in Primary Education" is a core subject offered in the third year of the North Brisbane College of Advanced Education's Diploma in Teaching course and is composed of strands. One of these is designated "Tradition and Change in Education" and it is in this programme that I have attempted, where possible, "to practise what it preaches".

The programme in its original form is described in Professor Cliff Turney's book, "Innovations in Teacher Education" under the sub-heading, "Methodological Exemplars".[1] Since the publication of this work, the programme has undergone modifications as a result of feedback from students.

The aim of this paper is to describe the above programme in the hope that it will be of interest to and prompt other tertiary teachers to describe programmes that they have found to be effective. While the programme, as a whole, may have limitations relative to direct applicability, I hope that it may serve as a focussing activity that will provide ideas for tertiary teachers interested in designing programmes that fall within the ambit of "methodological exemplars."

2. A SYSTEMATIC APPROACH

The starting point for re-designing the programme was Gerlach and Ely's[2] Systematic Approach.

This model has since been varied[3] and the modifications include:

(a) the addition of the word, "General" so that the lower left-hand square is re-designated "Specification of General Objectives"; and

(b) two squares have been added after the one designated, "Assessment of Entering Behaviours." These are headed, "Re-specification of Content" and "Specification of Specific Objectives". See Diagram One.

As the term "involvement" implies, the responsibility for the programme is not "handed over" to students. It is a team effort involving students and lecturer with the latter reserving the right of final decision.

The processes involved are allocated or shared in the following manner:

(a) specification of content and specification of general objectives - lecturer;

(b) assessment of entering behaviours - lecturer with student consultation;

(c) re-specification of content and specification of specific objectives - lecturer and students;

(d) determination of strategy, organisation of groups, allocation of time, allocation of space and selection of resources - students with some lecturer consultation;

(e) evaluation of performance - students and lecturer; and

(f) analysis of feedback - lecturer, students and consultants external to the programme.

3. GENERAL OBJECTIVES

The general objectives of the programme may be summarised as:

(a) to provide students with the opportunity to investigate current educational innovations and issues that may exist in, eventuate in, influence or affect Queensland primary schools;

(b) to provide students with a background knowledge of current educational issues so that, as teachers, they may engage in effective educational discussion; and

(c) to provide students with the opportunity to participate in the planning, teaching and evaluation of their own programme.

4. CONTENT

The lecturer selects content relevant to innovations and issues in education with, where possible, emphasis on school organisation. It has been arranged into seven modules:

(a) traditional school organisation and the back to basics debate;
(b) individual differences and school organisation including such areas as open education, team and co-operative teaching and school architecture;
(c) the community in education;
(d) educational accountability;
(e) deschooling;
(f) moral education; and
(g) schools and the law.

5. PRE-TEST AND RE-SPECIFICATION OF CONTENT

During the first session of a semester, a pre-test is administered. This is an objective test and questions are framed on all seven modules. The aim is to assess group knowledge thus highlighting those areas in need of most attention and those in need of least.

This is a programme taken in the third year of the three-year Diploma in Teaching Course and it is possible that after two years' study of education and experience of practice teaching, students, incidentally, may have gained a sound "working knowledge" of some areas of content.

The results of the pre-test are analysed and at the second session, they are discussed with the students. On the basis of this discussion, the content is re-specified. This may result in certain aspects of a module being emphasized and certain aspects being de-emphasized, for example, with module (b) it may mean that an area such as "school architecture" may be eliminated as students are adequately conversant with this topic. It may also mean that a complete module is eliminated, for example, students may be well versed in traditional school organisation and the back to basics debate, the content of module (a), as a result of their practical experience in schools.

6. INSTRUCTIONAL APPROACH

A module takes approximately a fortnight to complete and because the programme occupies only two hours per week, it has been decided that content can be most effectively treated in seminar sessions. Three or four students become responsible for the presentation of each module - of course this is directly related to group size.

An open approach to seminar presentation is adopted. In consultation with the lecturer and bearing in mind the results of the pre-test, student teams set specific objectives for their module.

Teams then become responsible for determining their own strategies, organising students into groups if necessary, allocating time (within the four hour limit), allocating space and selecting resources.

Students are expected to employ team and/or co-operative teaching in module presentation. Diagram Two outlines this approach. The role of the lecturer is that of adviser. He should be consulted on at least one occasion before the module is implemented. This is to ensure that strategies, organisation of groups, time and space, and the selection of resources are suitable. The lecturer also checks that certain basic information is included in the subject matter. Otherwise, the presentation is the responsibility of student teams.

To assist those students not involved in presenting the module to make the best use of seminar discussions, summaries of each module are "handed out" to them one week prior to the presentation of the module. In this way it is hoped that all students will be prepared for each session. The "hand outs" are really study guides and follow an agreed format, namely the listing of main points, minor points and bibliography.

7. EVALUATION AND FEEDBACK

Evaluation and subsequently feedback may be categorized under course evaluation and student assessment.

Student Assessment

Student Assessment involves:

(a) student participation in seminars - the lecturer maintains an anecdotal record;
(b) module presentation - student teams are evaluated on knowledge of topic, instructional approach and effectiveness in achieving specific objectives;
(c) independent study - presented as an essay of approximately 1500 words. Each study must receive lecturer approval to ensure that it is compatible with course objectives; and
(d) objective test - on the completion of their module, students may submit questions for inclusion in the item bank from which the end of semester test is formulated.

Course Evaluation

A modification of one educational accountability scheme is employed as a means of course assessment. This is the model put forward by Demont and Demont[4] and contains four components:

(a) a primary accountability agent;
(b) an internal review team;
(c) an external review team; and
(d) programme refinement.

The primary accountability agent is the final decision-maker for the programme, the one who is ultimately responsible. In this case, it is the lecturer.

The internal review team analyses the input-output relationsnip. In this programme, it attempts to assess how effective each module presentation has been. The review team does not have permanent members. Each fortnight, the student team that will be presenting its module during the following two weeks becomes the internal review team. Review teams record their assessments under the headings:

(a) effectiveness in reaching specific objectives;
(b) suitability, efficiency and originality of approach and presentation;
(c) effectiveness of audio/visual aids; and
(d) relevance and practicality of content for future teachers.

The external review team periodically checks the in-house review. The members of this team must be external to the programme but not necessarily to the division, department or institution. The external review team, in this case, is composed of lecturers not involved in the programme.

Programme refinement is initiated during the final session of the semester when students discuss reviews and make suggestions for improvements. The lecturer then examines these further before effecting any changes.

> Programme reviews cannot be ends in themselves. To be justified they must make some difference in the 'way of life' structured by a particular programme.[3]

8. COMMENT

The modified accountability scheme has been in operation for a period covering four semesters and internal reviews have, in the main, shown a high degree of satisfaction with the programme and success in achieving specific objectives. While I regard this as significant, I nevertheless acknowledge that student satisfaction need not necessarily be directly related to the most efficient and/or the most effective means of conducting a programme.

DIAGRAM ONE

MODIFIED SYSTEMATIC APPROACH

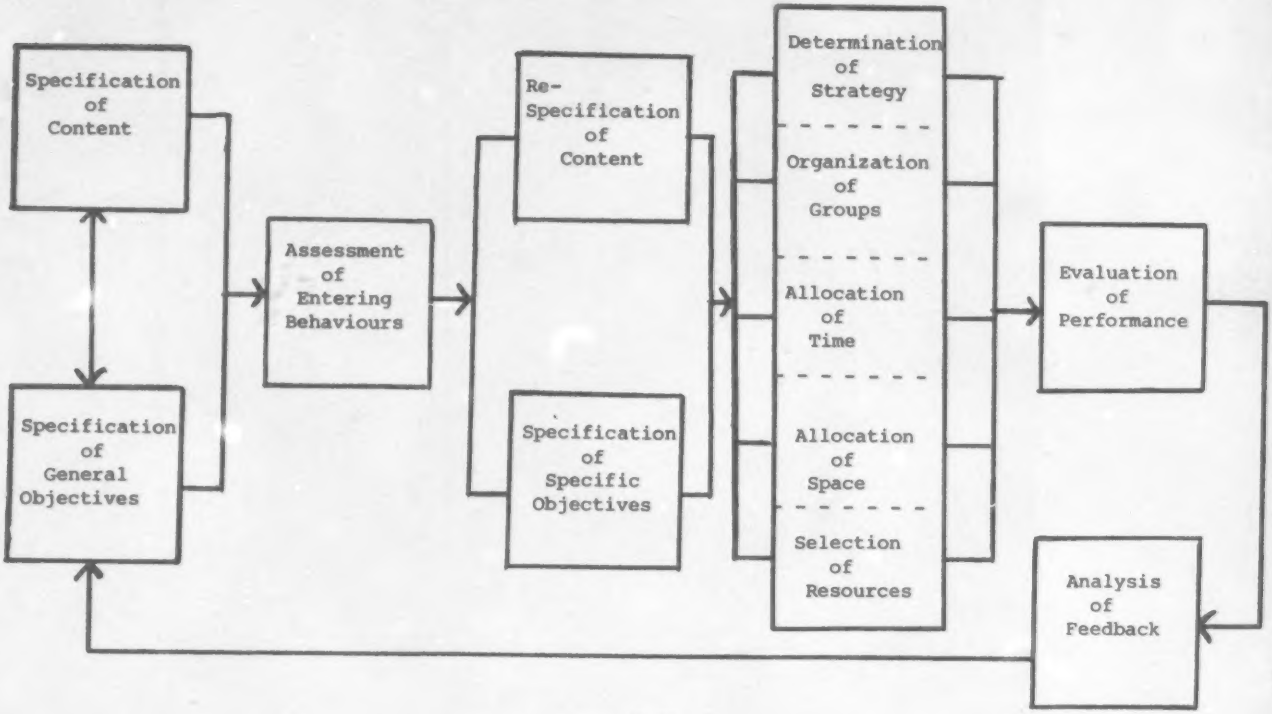
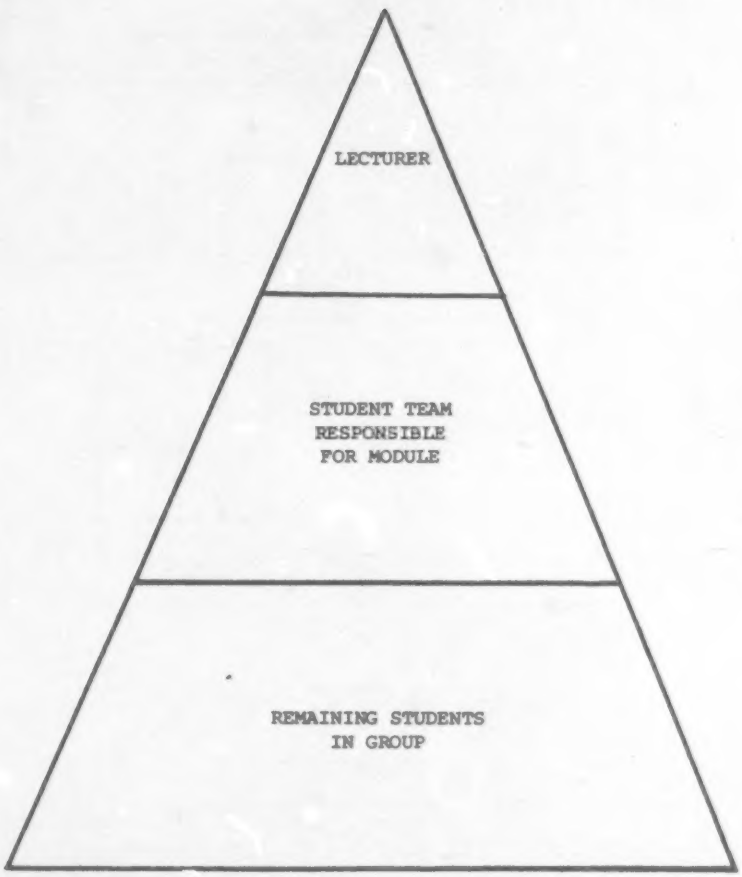


DIAGRAM TWO

TEACHING TEAMS



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1 Turney, C., Innovations in Teacher Education. Sydney University Press, Sydney, 1977. Page 16.

2 Gerlach, V.S. & Ely, D.P., Teaching and Media: A Systematic Approach. Prentice-Hall, Englewood Cliffs, 1971. Pages 12 - 30.

3 The variations to the model have been made by the lecturer and students involved in the course.

4 Demont, B.C. & Demont, R.A., "A Practical Approach to Accountability", Educational Technology, December, 1973. Pages 40 - 45.

5 ibid.

In the eye of the beholder:

(results from a New Zealand survey of education students' views on postgraduate research supervision).

D. & K. Battersby

For the last few years, about 1,000 students annually have been awarded post-graduate degrees by universities in New Zealand. A proportion of these degree recipients, through a dissertation, thesis or research project, have probably attempted to make some 'original contribution to knowledge' in their respective fields of endeavour. Not surprisingly, the prefaces to most of these contributions to knowledge contain some mention of that inimitable figure called the 'supervisor'.

In this paper, we focus our attention on this person, and in particular, on some of the basic questions relating to the role of the supervisor of post-graduate research: What do students think the role of the supervisor should be? How does this 'ideal' role match up in reality? What are some of the major supervision-related causes of satisfaction and dissatisfaction experienced by students? Data for discussion will be drawn from a survey of education post-graduate students from universities in the North Island of New Zealand.

INTRODUCTION

For the last few years, about 1,000 students annually have been awarded post-graduate degrees by universities in New Zealand. A proportion of these degree recipients, through a dissertation, thesis or research report, have probably attempted to make some 'original contribution to knowledge' in their respective fields of endeavour. Not surprisingly, the prefaces to most of these contributions contain some mention of that inimitable figure called the 'supervisor'.

During the last two decades, the supervisor of post-graduate research has been the focus of a number of investigations. For instance, in 1963 the Robbins Committee singled out supervision of research students in British universities as a major problem area:

> ... the evidence of our student survey provided disquieting confirmation of a general impression that the universities do not take their responsibilities seriously enough. Apart from the general lack of training and seminars, there is also the problem of the negligent supervisor --- (Committee on Higher Education Report, 1963, para 305).

In the sixteen years since the Robbins Report, Witton (1973), Chapman, (1974), Rudd (1975) and Welsh (1978) among others, have variously reported that exploitation, neglect and poor supervision are still significant factors students confront in their post-graduate study.

Indeed, in a seminal paper entitled, 'The Morphology of the Supervisory Role', Glasner and Mugford (1978) state:

> Everybody knows that there are complaints ranging from students who find their progress obstructed, to those whose work is neglected, to those whose work is stolen for publication under the name of the supervisor. (Glasner and Mugford, 1978, p.216).

To date, evidence to support the claim of Glasner and Mugford has been in the form of survey and interview data drawn extensively from samples of post-graduate students and supervisors in the general fields of arts, social sciences and sciences (Rudd, 1975; Welsh, 1978). Little research, however, has been undertaken on post-graduate students' views of supervision within some of the various disciplines of these broad areas.

This paper focusses upon research students from one such discipline: Education. In particular, the discussion will highlight the views these students have of supervision, drawing data from a survey of education post-graduate students enrolled at universities in the North Island of New Zealand.

PROCEDURE

During the second term of the 1979 academic year, a questionnaire was piloted at the University of Waikato with a sample of post-graduate education students pursuing research for a thesis or dissertation. This questionnaire was designed to gather information on the students and their views on the characteristics of their chief supervisor, the type of supervision they had received and their satisfaction/dissatisfaction with their supervision.

In September 1979, an amended version of this questionnaire was mailed to 73 education students[1] who were undertaking supervised research, and who were enrolled in masters and doctoral degrees at the three other North Island universities in New Zealand. Excluded from the survey were those students who were full-time faculty members of the universities.

RESULTS AND DISCUSSION

The response rate of 68 per cent (N=50)[2] is quite encouraging for a postal questionnaire, and can be taken as an indication of relatively high student feeling in this area. Further, this response rate suggests that the data gathered is probably representative of the current practice of supervision - from the viewpoint of students - given to masters and doctoral students in education at the universities sampled.

Those Supervised: The Students

The background information on the questionnaire respondents can be summarised as follows: 29 males and 21 females returned questionnaires; of these 80 per cent were enrolled in masters degrees (M.A., M.Ed. or M.Phil), while the remainder were doctoral candidates. Approximately half of the masters and doctoral students were enrolled full-time.

The age of the respondents was within the range 20 years to 50 years, with two-thirds of them being under 36 years of age. Twelve per cent of the sample had been enrolled for their current degree for more than three years. Six per cent of the students did not expect to complete their degree before the end of 1980.

Approximately one in every two students indicated that the most important factors involved in their decision to study for a higher degree were future promotion/employment opportunities (44 per cent), and interest (42 per cent). Most of the students in excess of 84 per cent - preferred future employment in the field of education (e.g. teaching, lecturing, psychological service, university research).

While it is difficult to generalise from this data, it is of interest to note that a higher percentage of females than males was under the age of 36 years (30 per cent vs 50 per cent), was in the 31 - 35 age group (43 per cent vs. 24 per cent) and were full-time students (62 per cent vs. 35 per cent). This could suggest several possibilities. First, the percentage of females who enter full-time employment upon obtaining a graduate qualification is probably less than that for males; second, there seems a greater likelihood of a woman enrolling in, and probably completing a masters or doctoral degree in education before she reaches the age of 36 years; and third, the high proportion of females in the 31-35 years age group may suggest: (a) this is a likely age group for women graduates to return to university study after a break for child rearing, and (b) that this also could be an age group in which females are more likely to undertake a post-graduate degree as a prerequisite for employment and possibly promotion. Support for this latter proposition can be seen in that over one-third of the females indicated that their main reason for embarking upon post-graduate study was to obtain employment and promotion; and second, 43 per cent of females preferred future employment in areas (e.g., university teaching and psychological service) which normally require a post-graduate qualification.

The male students in the sample, on the other hand, showed no clear preference for any one type of future employment. Furthermore, the small proportion of males who were full-time students (35 per cent), coupled with the large percentage in the 31-45 years age group (70 per cent) seems to confirm two longstanding beliefs. First, males are more likely to be in full-time employment when they embark upon a masters or doctoral degree in education. Second, and following on from this, males possibly look upon a post-graduate qualification in education as a means of obtaining promotion in their current position, and to a lesser extent employment in other fields of education. Indeed, for approximately 50 per cent of the males, future promotion/employment was the main factor in their decision to study for a higher degree.

Enrolment and Choice of Research Topic

The data showed that the majority of students acted on their own initiative to enrol for a higher degree (73 per cent), chose their general field of research (80 per cent) and selected their own detailed research topics (64 per cent). The data also indicated that the male respondents tended to be more self-initiating in enrolling for higher degrees

compared with the females who tended to receive encouragement, particularly from staff members. Once committed to enrolment, the female students showed more autonomy than the male students in choosing both the general field of study and the detailed research topic.

Characteristics of Chief Supervisors

Ninety per cent of the questionnaire respondents had male chief supervisors. In most cases, the chief supervisor was either a professor (36 per cent) or a senior lecturer (38 per cent). While 50 per cent of the female students were supervised by a professor, only a quarter of the males were supervised by a person of the same status. Further, only 15 per cent of females were supervised by a senior lecturer, whereas more than half the male students had a senior lecturer as chief supervisor.

It was of interest to note that all the male students were supervised by male supervisors, and that about one quarter of the female students had female chief supervisors. This imbalance, which is not surprising considering the relatively few female education lecturers in universities, may in fact reduce the likelihood of research being undertaken in certain areas of education (e.g. women's studies). One female student, for instance commented that she had a 'burning interest in women in schools'. However, no one in her 'male dominated department had a knowledge or interest in the topic'.

When asked whether their supervisor was an active researcher, three quarters of the students replied in the affirmative, while the remainder either said 'no', or were 'not sure'. On this issue, Welsh comments that 'there is much more likelihood that the satisfied student will be supervised by an active researcher than by a staff member who is not active in research' (p. 79). While this may be true in some cases, evidence was collected in this survey to indicate the contrary. That is, the active researcher may have little time to spend with the student and hence cause some dissatisfaction on the student's part. For instance:

> *The variability of my supervisor's availability during 1979 was due to his heavy research commitments. Because of his restricted time available, I chose not to discuss organisational problems, and instead focussed on theoretical and experimental ideas. However, I had difficulties in obtaining equipment and arranging subjects, which in the end adversely affected my experimental results. This may have been avoided by the greater availability of my supervisor.*
> *(Male-Masters-F/t)*

A related question revealed that only about half of the male students and two thirds of the female students had research interests which were close to those of their supervisor. In some instances it was found that students valued the opportunity of not having research interests closely allied to their supervisor, as one student commented:

> *I have worked independently, choosing a theoretical topic removed from most of the interests of the staff. This situation has worked in my favour as I prefer to think that my conclusions are my own. I feel that I have become more intellectually autonomous as a result.*
> *(Female-Masters-F/t)*

A greater number of students, however, expressed some dissatisfaction with being supervised by an academic whose research interests were removed from those of the student. In this regard, the following were typical comments:

> *I have friends in another department who discuss my ideas with me and encourage me, so I don't really mind being dissatisfied with my supervision. I just wish he knew a bit more about the topic. Trouble is we have very different approaches and our whole outlooks don't gel ...*
> *(Female-Masters-F/t)*

> *My first topic was not well known to my supervisor and I gave it up after much floundering and little guidance.*
> *(Male-Masters-P/t)*

> *Personally, I've found supervisors in year I hopeless. My chief supervisor was a senior lecturer who was not with it. The second supervisor I had was newly appointed and wanted a project similar to his Ph.D.*
> *(Male-Doctoral-P/t)*

The Role of the Supervisor: The Students' View

Two questions asked of the students were: What do you think the role of the supervisor should be? and, How well has your supervisor fulfilled this role in 1979?

The first question, which required an open-ended response, prompted a number of comments like the following:

> *I think a supervisor should be a person who is, as much as anything else, a morale booster and gives encouragement. S/he should be interested in the student and the topic, and be able to read what the student has written, about once every 6 weeks and comment fully (not just grammar etc., though that is important, too). A supervisor should try to keep up with the main reading the student is doing. Also, conversation is vital - constant conversation and discussion of the student's ideas, arguments and progress (at least once or twice a week).*
> *(Female-Masters-F/t)*

> *I would prefer if the supervisor could possibly help in defining the parameters of a particular research topic. I see the role of a supervisor as a guide, helper, critic and evaluator in the areas of defining, organising, searching and presenting research material. What I don't like to see a supervisor do is to persuade a student into his own favourite area of research (against a student's wishes or capabilities), or refuse to break out of his own narrow conceptual framework when guiding, helping, criticising and evaluating his student's work.*
> *(Male-Masters-P/t)*

Contact with Chief Supervisor During 1979

A content analysis of all the students' statements revealed that, among other things, students think the supervisor should counsel, advise and guide (56 per cent), be a good source of ideas (26 per cent), be a constructive critic (22 per cent) and give encouragement (18 per cent). Welsh discerned a similar set of expectations and concluded:

> The student expects professional expertise on the part of his supervisor ... He expects his supervisor to have the ability and knowledge to offer informed guidance and advice on his research topic, to criticise constructively ... The supervisor must be possessed of certain personal qualities which allow him readily to show interest and enthusiasm for his postgraduate's work ... The supervisor should also be efficient in the organisation of his supervisory duties. The student expects his supervisor willingly to spend time with him, to be readily available or at least contactable if and when the need arises. (Welsh, 1979, p. 28).

When asked how well their supervisor has fulfilled what was expected of them, most students indicated 'fairly well' (44 per cent) or 'very well' (40 per cent), while a few students (16 per cent) responded 'not at all'. This issue was explored further in the questionnaire when the students were asked whether or not their chief supervisor displayed the following supervisory qualities during 1979:

Good Source of Ideas: One third of the students said that their chief supervisor was a good source of ideas. At first glance, this may appear an unfavourable situation. However, only 26 per cent of the students expected this to be a quality of a chief supervisor.

Gives Encouragement and Gives Constructive Criticism: Approximately 70 per cent of the respondents indicated that the chief supervisor displayed one or other of these qualities in supervision. Only about 20 per cent of the students had expected these to be characteristics of a supervisor.

Appears Interested in Student's Work and Is Willing to Listen and Discuss Work: While only 10 per cent of students suggested that these qualities should be evident in supervision, more than three quarters of the respondents indicated affirmatively that their supervisors displayed these characteristics.

Contact with Chief Supervisor During 1979

When asked how regularly they discussed their research with their chief supervisor during 1979, more than half the students indicated 'less than monthly' (54 per cent), while the remainder said either 'weekly' (24 per cent) or 'monthly' (20 per cent). Male students were found to meet with their supervisors less frequently than female students. However, this may be due, in part, to the relatively high percentage of full-time female students (62 per cent).

It was also noteworthy that only about 10 per cent of the students indicated they had supervisors who were not readily contactable. Furthermore, relatively few students thought that contact with their supervisor during 1979 was 'not really useful' (12 per cent), nor adequate for their needs (16 per cent). Written comments from the students also suggest they were generally satisfied with the contact they had had with their supervisors. However, some of the students, mainly those pursuing their degree on a part-time basis, commented that they experienced special problems in this area:

> *I have been faced with pressures of learning to do a job as well, and thesis time has been at a premium. My supervisor has also been busy with both personal and professional things. There have been frustrations in terms of my feeling that I have had to do many things on my own, but these have to be counterbalanced by satisfaction of achievement, albeit slow, and learning by doing i.e., learning about research.*
>
> *(Male-Masters-P/t)*

> *I am generally as happy as my 'part-time' circumstances allow. The lack of contact I've had with my supervisor is my fault rather than his. The distance factor, my family and teaching commitments are far greater barriers to effective research than a poor supervisor would be, I'm sure. My supervisor has given as much help as he has been able to.*
>
> *(Female-Masters-P/t)*

> *As I live some distance from the university, it naturally limits the number of contacts. However, these contacts are usually mutually agreed appointments and because I have to travel some way, I feel that the supervisor should make a more positive contribution rather than just respond to my queries.*
>
> *(Male-Masters-P/t)*

Type of Supervision Received in 1979

The questionnaire sent to the students also explored the type of supervision they received, and would have preferred to receive, during 1979. To this end, the following directions were given in the questionnaire:

> There appear to be two extremes of supervision:
>
> close - supervisor gives step by step instruction, constant direction of student's research and has constant contact with the student;
>
> remote - little contact with student, little attempt to direct research.
>
> Most supervision probably falls somewhere between these two extremes. In 1979, what type of supervision have you received?

The students were asked to indicate their response to this question on a five point Likert scale. A similar procedure was used in the follow-up question where the students were asked: What kind of supervision would you like to have received?

An analysis of the responses to these two questions showed a consensus among the male and female students that the type of supervision received during 1979 was more remote than they would have preferred. However, the 3.0 (sd 0.79) mean response for all the students for the type of supervision they would have preferred to receive highlights that, rather than a preference for close or remote supervision, most students would favour aspects of both.

While it is statistically convenient to discuss mean responses in this context, there is a danger in overlooking an important issue: the individualism of each student and supervisor:

> *Different people would like different styles of supervision. Supervisors should make it clear right at the start what their style is. I knew my supervisor well enough to know that his style would suit me.*
> *(Male-Masters-F/t)*
>
> *Supervision has to vary with the ability of the student. I have supervised a M.A. student and while I would have preferred to provide less close supervision, in the interests of the student and the research, I found myself giving much more specific help than I would have preferred.*
> *(Male-Doctoral-P/t: this respondent was a university lecturer, and as such was excluded from the sample)*

A number of other students also discussed the style of supervision they received. Inter alia, they commented:

> *My supervisor has had a low-key approach and left it up to me. Doing a thesis part-time has suited my style of approach and has enabled me to work at it consistently.*
> *(Male-Masters-P/t)*

> *Results will determine whether my supervision should have been closer. At present it would appear that my supervisor considers that I function well enough with minimal direct supervision - at least I hope that this is his position.*
> *(Male-Masters-P/t)*

> *My supervisor has explicitly adopted the approach that the Ph.D. candidate has the entire responsibility for setting up and carrying out the research - a technique which he explains was used when he did his study for a Ph.D. This technique certainly has the potential for assisting the Ph.D. student to develop independent work habits - although as I have been accustomed to deciding my own fate I am not sure that it was the right technique for me. I find a Rogerian "Uh Huh" a little annoying when I come seeking an opinion. At the same time I can see the danger in being wet-nursed - and my supervisor has at least pointed out when he felt I was dangerously off course.*
> *(Female-Doctoral-F/t)*

Satisfaction with Chief Supervisor

How important is your chief supervisor to your research? Forty per cent of the students thought that their chief supervisor played a 'very important' role, while a similar percentage of respondents replied 'fairly important' (44 per cent). Sixteen per cent of the students (14 per cent of the males and 19 per cent of the females) indicated that their chief supervisor was of no importance to their research. Virtually the same percentage of students (18 per cent) expressed a desire to change their chief supervisor. In this instance, the percentage of respondents comprised 21 per cent of the male students and 14 per cent of female students. It is obvious, then, that about 82 per cent of the students had no desire to change their chief supervisor even though their supervisor was not important to their research.

Those students who desired to change their chief supervisor were asked to state their reasons. The following are representative of their remarks:

I needed more direction and guidance at the beginning of my research. I was left to flounder for six months.
(Male-Masters-P/t)

(a) He is always busy on his own work.
(b) I meet him once every two weeks and this is not enough.
(Male-Masters-F/t)

I feel that my supervisor could be better prepared and have more to contribute when we meet for discussion.
(Male-Masters-P/t)

My chief supervisor is useless - "you have a split infinitive on page 14", etc.
(Male-Doctoral-P/t)

The Bad Supervisor

In the final section of the questionnaire, students were asked what they would do if they were being 'badly supervised'. About half the students said they would see the professor or head of department (24 per cent), or discuss the problem with their supervisor (24 per cent). Some of the students mentioned various other procedures they would adopt, including:

- Seeking advice elsewhere about research
- Seeking another supervisor
- Ask God for assistance
- Revolt
- Talk to other post-graduates
- Change area of research

Eighteen per cent of the students admitted that they would 'put up with' bad supervision. Some reasons were:

It seems that there is nothing I could do about it. It is too late to do anything anyway. I am running out of time. I just hope that I can finish it as soon as possible and then forget the whole thing.
(Male-Masters-F/t)

I tend to accept the supervisor I've got and put up with it.
(Male-Doctoral-P/t)

I might discuss the problem with the head of department. However, I'd probably try and compromise and do my work on my own to the best of my ability.
(Female-Masters-F/t)

Although it would be desirable to have a supervisor who is familiar with my area of research, the nature of my work does not necessitate close supervision. Also at this stage, I put up with it because it is unrealistic to think of changing supervisors.
(Male-Masters-P/t)

At the Ph.D. level all a student can probably do is seek advice from elsewhere. In extreme cases you would seek another supervisor, but unless it was on grounds of research incompetence, it is doubtful whether you would be wise to complain. I'd probably grin and bear it!
(Male-Doctoral-F/t)

I would do nothing because my supervisor marks my thesis.
(Female-Masters-F/t)

General Comments about Supervision

The concluding part of the questionnaire was made open-ended to facilitate general comments from students on their supervision. Many of the respondents took advantage of this opportunity. A number of their comments have already been used in anecdotal form to clarify issues in previous sections of this paper. Others are included here to cover miscellaneous topics put forward by students, such as: thoughts about the research programme; university 'politicking'; and, hearty praise for the efforts of some supervisors.

Some masters and doctoral students commented that the relatively unstructured nature of their programme acts as a hinderance to motivation, and in some instances can cause considerable stress. Added to this burden is the frustrating lack of facilities students can encounter:

I think that the university does not really support a Ph.D. programme in terms of facilities - for example, as a full-time student I could have no room and Ph.D. students are not allowed to have access to library carrels. The journals - or lack of them - are a disgrace. Computer access is limited.
(Female-Doctoral-F/t)

Remarks on staff and university politics were wholly respondent initiated, and as such, realised a dimension of strong student feeling. One masters student remarked that:

My chief supervisor is only interested in students completing a thesis for university and departmental political reasons.
(Female-Masters-P/t)

Another response was:

Politics within a department cost me the 1st year of my course. My energies were expended trying to keep my supervisors happy. My two supervisors never met me until the beginning of the second year and then it only came about as a result of the head of department intervening.
(Male-Doctoral-P/t)

One other doctoral student also commented about university politics:

All research is vetted by a Graduate Research Board - which gives the impression of meddling more than facilitating co-operation between the university and the community. Also, the same power structure which exists on this committee also is evident in the department and ultimately on the orals and examination committee. This means that students would be very unwise to complain.
(Female-Doctoral-P/t)

Finally, the following statements reflect the effort of some supervisors and the value some students place on the supervision they receive:

Because my thesis consisted of a philosophical critique rather than an empirical research project, the nature of the supervision I required was somewhat different from what would normally be the case. In terms of the supervision required the quality provided was first class.
(Male-Masters-P/t)

My supervisor is excellent - tolerant, encouraging, helpful, very knowledgeable, easy to get along with and genuinely interested in my work.
(Male-Doctoral-F/t)

I am very happy with my supervisor. The relationship is one of 'friend'; his advice is constructive; and he goes out of his way to assist, e.g. establish contacts, on the spot liaison with computer staff, etc..
(Male-Masters-P/t)

SUMMARY AND CONCLUSION

Some findings of this survey were possibly predictable. For example, future employment and promotion opportunities figures prominently in students' decisions to study for a higher degree; students usually acted on their own initiative in enrolling for a masters or doctoral degree; most students had as their chief supervisor a male senior lecturer or a male professor; and, most students were of the opinion that their chief supervisor was important to their research.

Other results proved interesting, such as, the relatively high proportion of female students who preferred future employment in male dominated fields (e.g. university teaching and psychological service); the greater autonomy of females over males in choosing a general field of research and in selecting a detailed research topic; and the fact that nearly one in every five students would like to change their chief supervisor.

Several of the survey findings, however, were surprising. More than half the students met with their chief supervisor less than once a month; most students indicated that they received a type of supervision which could be classified as being more remote than was preferred; half the male students and one third of the females had research interests which were not closely allied to those of their supervisors; and, if faced with bad supervision, one in five students said they would 'put up with it'.

Discussion of the above findings in this paper has primarily concentrated on a comparison of the data relating to differences which exist in the supervision of:

- students with more than one supervisor (28 per cent of respondents had two supervisors and 4 per cent of students had three supervisors)
- part-time and full-time students
- students from various age groups
- students who have been enrolled in their current higher degree for differing periods of time
- masters and doctoral students

Another shortcoming is that the survey data referred to is affected by the attendant limitations of the one-shot questionnaire approach. In addition, coding and quantifying this type of data can often lead to stereotyping, whereas the students themselves placed clear emphasis on the notion of individuality and its importance for supervision.

Nevertheless, the findings of this study do raise a number of issues, two of which deserve immediate attention: What are the catalysts for the motivation, satisfaction and commitment of higher degree students? and, what effect does supervision - or non-supervision - have on students?

Underlying both these issues is an even more fundamental question: What is the policy of universities on the purposes of higher degrees, and the procedures students, supervisors, and indeed, universities should adopt

to meet these purposes? This question will probably remain unresolved, because, as one student stated:

> *... if the powers that be cannot agree as to the purposes of the (higher) degree - e.g., is it the identification of excellence, the encouragement of excellence, the certification of competence, the certification of attendance, the production of academic papers, or whatever? - it is too much to expect the system to lay down agreed procedures for achieving those purposes.*
> *(Male-Doctoral-F/t)*

In the light of this survey, the ramifications of the above remark lead one to concede that, at present, there may be some truth in the statement: 'the question, "who supervises the supervisors?", has not been asked'.

FOOTNOTES

[1] These students were drawn from those listed in: In Progress Degree and Diploma Studies 1979. NZARE: Wellington.

[2] This response rate does not take into account that some of the 73 students may not have received a questionnaire for various reasons (e.g. student overseas). Questionnaires were distributed by departmental secretaries in each university.

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Student learning skills: Attitudes of Australian academics in universities and CAE'S

J. Bowden and J. Anwyl

There is conjecture about the role of tertiary institutions in providing help to students with the processes of learning. Opinions of academics are divided as to whether such assistance is necessary or desirable and, if it is, how it should be given and who should carry out the task. In this paper, responses to these issues by tertiary teachers in our 1978 national survey are examined and related to other attitudes and characteristics determined from the study.

An important aspect of students' capacity to learn efficiently is the skill they possess in making use of available resources - resources which range from printed materials, lectures and the teachers themselves to personal resources such as energy, efficiency and motivation. This paper focuses on the perception of Australian academics of their role in assisting students to develop such skills.

Over the last two decades there has been a high level of concern about the quality of teaching in tertiary institutions and its relation to student attainment. Statements in the Report of the Williams Committee (Education, Training and Employment: 166-171) indicate that such concern continues, and that issues such as student attrition rates will be the subject of both educational and public debate in the coming years.

There is a need to look not just at the quality of teaching however. The efficiency and effectiveness of students' approaches to learning are also important and research in this area has undergone a development recently. Entwistle and Hounsell report that investigations into how students learn are placing less emphasis on research by experimental psychologists, and that more attention is being paid to studies of learning in the institutional setting. Investigators are concerned to discover what approaches to learning in a tertiary institution are successful for students, and what sort of environment enhances their capacity to learn.

The role of tertiary teachers in helping students acquire skills in learning is not clear. It is arguable whether academics have any responsibility to go further than merely providing the teaching/learning resources; whether they have an obligation to assist their students to use the available resources wisely and well. Abroad, Donald Bligh at Exeter and Marcel Goldschmid at Lausanne are two renowned scholars involved in the development of students study skills at their respective institutions. In Australia, there are several programmes of this sort, and it is an activity referred to by the Williams Committee (Education, Training and Employment: 199)

> More effective learning could improve graduation rates. Many techniques of learning are not adequately developed at school. Many students profit from instruction in the use of libraries and laboratories, on ways to note

> lectures and texts, memorise essential and useful information and prepare and present essays.

The Report then goes on to recommend 'an extension of the practice in some universities of allocating each first year student to a general tutor.'

The definition of learning skills may be extended beyond those points mentioned by the Williams Committee. For instance, the Learning Skills Project at the University of Melbourne (MU-LSP) has in addition emphasised skills in time-management, decision-making, management of uncertainty and tension, and pacing of study effort throughout a course. Some of these go beyond the strictly academic skills referred to by the Williams Committee. It is not surprising that student counselling units are playing an important role in the development of many learning skills programmes in this country.

In the light of this, it is important to ask whether such programmes have grass-roots support among Australian academics. Their attitudes are probed in this paper.

The paper draws primarily from our national survey conducted in 1978 titled 'the social and educational role and values of Australian academics'. The data were collected by mailed questionnaires which were distributed to academic staff in ten universities and thirty colleges of advanced education (CAEs) in all states of Australia. Some 2,150 completed questionnaires were received representing a 56 per cent response rate. The sample was stratified according to size of institution (based on numbers of full-time teaching staff, lecturer and above). After allowance for over-sampling in smaller states, a nationally representative file has been established consisting of about 600 variables for 1,735 cases. Analyses reported here have been computed on this data file. Differences between groups are reported only if they are significant below the 0.01 level.

In the survey, there were three questions dealing with student study skills. Respondents were asked whether tertiary institutions have a responsibility to teach study skills to students and, if so, whether such a responsibility rests with the individual academic or with a special unit or person in the institution.

Consider the first question which is 'Do universities and colleges have a responsibility to teach study skills to students (e.g. note-taking, reading skills)?' Respondents were asked to comment on the two types of institution independently and the views of university and CAE staff have been separated here. Table 1 shows the percentage of all respondents to each proposition who agree that universities or CAEs do have a responsibility. (The numbers who did respond to each part of the question are given in brackets after the percentage figures.)

Overall, the majority of both university and CAE academics recognise an institutional responsibility for teaching study skills although CAE respondents tend to be more likely than university staff to support this view.

It appears from the figures in Table 1 that some university staff may be adopting an élitist stance. A greater percentage of university respondents assert that CAEs have responsibility in this area than the percentage who recognise a university responsibility (74 per cent compared with only 64 per cent). However, further analysis is required to test this hypothesis because of the different response rates to each part of the question. Hence in Table 2, the responses of only those academics who answered the question both for CAEs and for universities are included.

The data shown in Table 2 indicates that the vast majority of both CAE and university respondents express the same view of an institution's responsibility to teach study skills for both sectors. The only major exception are the 11 per cent of university respondents who adopt the élitist position described above. They are supported by only a handful of CAE staff.

The positive attitude of Australian academics to study skills programmes as shown in our survey has been borne out in an evaluation study currently being carried out on the MU-LSP referred to earlier. Rightly or wrongly, many University of Melbourne academics have lamented the quality of preparation of students in secondary schools. They have taken the attitude, however, that they have a responsibility to teach study skills if the students selected for tertiary studies lack them. They have suggested that in any case, many of the skills required to make best use of the opportunity to participate in tertiary education are acquired only gradually and that, especially when new disciplines are studied at a tertiary level, new study approaches and new learning skills need to be developed.

They also suggest that new approaches are required to familiar subjects and they stress the need for students to develop an independent approach to learning when they enter tertiary courses from Higher School Certificate studies (or, as in the case of mature age students, from a variety of backgrounds). This independence is often something which must be learnt and it is significant that a majority of academics in our survey see an institutional responsibility in this area.

To say it is the institution's responsibility to teach these skills does not of course specify just who should take the active role. Respondents to our survey were asked whose responsibility they thought it was. The specific questions were 'Do you think it should be your responsibility to teach your students study skills?' and 'Should teaching of study skills be the responsibility of a special person or unit in the institution?' The figures in Table 3 show that opinions vary.

About two-fifths of university respondents and half the CAE respondents believe that individual academics have a responsibility to teach study skills. In interviews carried out as part of the MU-LSP evaluation, it was found that academics perceive a variety of learning skills being necessarily intertwined with the knowledge content of their discipline. Undoubtedly they see their teaching responsibility not just being the development of expertise in students to handle the information as well. Many of them however see a further spectrum of skills, which are more general and are common to a range of disciplines, and which a special

unit in the institution, or perhaps in the faculty, might address. In our national survey, just over half the university respondents and nearly two-thirds of those from CAEs believe there is a place for a special study skills unit or person in their institution.

It is interesting that in universities only 35 per cent of professors believe that a special unit has a responsibility in this area with 55 per cent of them seeing study skills as an individual academic's responsibility. The corresponding figure for respondents with lecturer status are 64 per cent and 44 per cent. This divergence of view is also apparent between senior and junior staff in the CAEs. It is interesting that in many instances, when departments embark upon study skills programmes, it is the junior staff member who is most commonly called upon to act. The survey data indicate that this may be a potential cause for conflict.

It should not be assumed that all respondents who agree with the proposition that study skills help should be provided by the institution would want to assist all students in this way. In the MU-LSP evaluation it was found that some Melbourne university staff believe that no such help should be given to students who are failing. They see the institution having a firm responsibility to help able students achieve even more but indeed take a 'sink or swim' attitude to less able students. There are others who take the latter approach to all students. It is therefore worthwhile considering some other attitudes of academic respondents to our survey in relation to their view on study skills.

Some preliminary factor analysis has been carried out on selected variables from our survey. One factor which emerged contains six of these variables. Listed below are the six statements with which respondents were asked to agree or disagree (on a five-point scale).

1 Most emphasis in student assessment should be given to traditional, final, unseen examinations.

2 Cumulative assessment is the fairest form of assessment.

3 Academics should deliberately involve students in determining assessment policies.

4 It is unrealistic to expect academics to respond very much to students' individual differences.

5 Academics should concentrate on gifted rather than average students.

6 Academics should emphasise with students their role as a knowledgeable authority.

The variables corresponding to statements 2 and 3 are positively correlated and they are both negatively correlated with the remaining variables. Agreement with statements 1, 4, 5 and 6 and disagreement with statements 2 and 3 might cause a tertiary teacher to be described as a traditional or conservative academic on teaching/learning issues.

It might be argued that such an academic would not be favourably disposed towards provision of study skills assistance. In fact the survey data show that those who do not believe their institution has such a responsibility are more likely to express a conservative view to the above statements than their colleagues who believe tertiary institutions should provide study skills help.

In addition, those who practise more traditional teaching methods (as evidenced in other items from our survey) such as using lectures regularly, rarely modifying them from the traditional format, and rarely using unconventional small group teaching methods, are also less likely to hold institutions responsible for study skills assistance to students.

Generally, use of unconventional teaching methods is time-consuming and it is not surprising to find that the same bias is found in a question asking academics whether their main interests were in teaching or research. Those whose interests are in teaching, to whatever degree, are more likely to believe that institutions have a responsibility to teach study skills than those whose primary interest is in research.

There were in our questionnaire several additional questions concerned with the activities of staff development units. The responses to them correlate with those on the study skills question. Those academics who have participated in some in-service courses are more likely to express agreement on the institution's responsibility for study skills than those who have not. The same is true on the level of agreement with the six statements listed below. These six statements were associated in a second factor in our preliminary factor analysis.

1 All universities and colleges should have teaching units to help staff with teaching problems.

2 Teaching units should have to be consulted about all new curriculum developments.

3 Teaching units should monitor assessment practices of departments.

4 All university and CAE teachers should be compelled to undertake a course in teaching.

5 All university and CAE teachers should voluntarily undertake a course in teaching.

6 Promotion for teaching should require assessment by teaching units.

There is considerable variation in agreement among these various statements, especially between those implying compulsion (which had less support) and those that did not contain that element. However those academics who believe there is an institutional responsibility for study skills teaching express greater agreement with all statements than do those who do not recognise such a responsibility. In

addition, those who favour that the study skills teaching be carried out by a special unit in the institution show more positive attitudes to staff development as well. This is hardly surprising.

What has been shown here is that a large majority of Australian academics believe that both universities and CAEs have a responsibility to provide study skills assistance to their students. CAE staff are more likely than those in universities to express such a belief. Academics' attitudes vary as to whether it is their own individual responsibility or whether the study skills assistance should be given by a special person or unit in the institution. The latter is favoured by more junior staff and the former by senior academics.

The survey analysis also shows that academics who have conservative attitudes on teaching/learning issues, academics who use more traditional teaching methods, academics who do not seek help from staff development units and academics who have more negative attitudes to the role of such units are less likely to believe that their institution has a responsibility to teach student study skills.

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Table 1

Institutional responsibility to teach study skills

	University respondents (Total N=818)	CAE respondents (Total N-913)
	% Yes	% Yes
Universities have a responsibility	64 (N=792)	79 (N=805)
CAEs have a responsibility	74 (N=605)	81 (N=885)

Table 2

Sector comparison of responsibility to teach study skills

	University respondents (N=601)	CAE respondents (N=792)
	%	%
Both universities and CAEs have responsibility	64	78
Universities have responsibility but not CAEs	2	1
CAEs have responsibility but not universities	11	3
Neither have responsibility	23	18

Table 3

Where responsibility for study skills lies

	University respondents (N=818)	CAE respondents (N=913)
	%	%
Both individual and special unit	14	21
Individual academic only	23	27
Special unit only	37	39
Neither	20	9
No information	6	4

PART III

ACCREDITATION, CERTIFICATION AND THE CONTROL OF LEARNING

13. Undergraduate medical examinations: A conflict of interests
G.I. Feletti

14. Professional accreditation
E. Stokes

15. Influence of accreditation procedures on academic course planners
R. Wellard

16. First year medical students' autonomy - Its impact on response to courses
G.A. Colditz & M.G. Sheehan

INTRODUCTION TO PART III

Courses in higher education which lead directly to professional qualifications, such as medicine, veterinary science, dentistry, architecture, engineering and accounting create greater problems for course planners than broader based programmes in traditional arts, science or economics faculties. Many of the arguments advanced in Part II about students' freedom to choose what they will learn or how they will be tested cannot be readily sustained in a faculty where learning outcomes are specified by the profession which will absorb graduates of that faculty. It is therefore helpful to have two papers from people with a close knowledge of changes in medical education, the first from the University of Newcastle, NSW, which admitted its first students to an entirely new experience-based programme in 1978, and the other from the University of Queensland where in 1979 a new programme was introduced within an existing Faculty of Medicine. Between these two papers are one which describes the problems of maintaining standards for entrance to the engineering profession and one which examines the effect of state-wide accreditation procedures on course designers.

The opening paper, by G.I. Feletti, points out the futility of limiting access to a profession on statistical grounds alone and presents a case for criterion based assessment in professional faculties, giving examples from the Newcastle medical course. He also demonstrates the importance of providing students with regular and detailed information (feedback) about their progress.

E. Stokes traces the history of professional accreditation in a number of fields and shows that with the proliferation of tertiary institutions, all aiming to satisfy the requirements of a professional body, original approaches are likely to be discouraged. Under these circumstances, claims Stokes, course planners try to please members of the accreditation panel rather than shape their courses to the needs of the profession. This hypothesis is further supported by R. Wellard who gives an overview of six case studies describing the development and accreditation of courses in Victorian CAEs. He comes to the rather disturbing conclusion that present accreditation procedures do not fulfil their original purpose but result in a type of "academic entrepreneuralism".

The final paper by C.A. Colditz and M.G. Sheehan reports on a survey of medical students' assessment of the degree to which first year courses in the re-structured medical curriculum in Queensland contribute to the qualities sought in a medical practitioner. They conclude that students are more likely to be influenced by the style of instruction than the content of a course when judging its relevance to their future professional needs.

Undergraduate medical examinations: a conflict of interests

G.I. Feletti

This paper outlines the problems faced by this Faculty and its students in developing an assessment programme dedicated to educational and certification roles. The initial programme made appropriate use of a structured sequence of formative assessment, enabling students to monitor their own progress. It also provided several opportunities for students to demonstrate their competence at summative (or certification) assessments. The Faculty actively guided students with their remediation in general and specific areas.

Evaluation of the initial programme by both students and Faculty led to a joint proposal for a more humane and effective assessment programme after four terms. Feedback on the latest model is very encouraging. However there remain a few unresolved difficulties.

The title of this paper points to an apparent conflict between the education and certification roles demanded of examinations. The nature of any such conflict is of particular interest to the new medical school at the University of Newcastle, N.S.W. From its curriculum-planning stage the school has sought to integrate student assessment into its basic educational philosophy[1]. However, before outlining its implementation it will be fruitful to re-discover some of the general dynamics of examinations. This is perhaps best done by a series of questions.

What is required of examinations for certification purposes?

The Concise Oxford Dictionary claimed that to certify: (of doctor) is to officially declare (person) insane. Wittingly or otherwise, it did not specify 'the person'. A more applicable version was: to declare by certificate, which is "a document formally attesting a fact especially in favour of the bearer". This definition raises two issues - both of which are well-known to educationalists.

One issue involves the way we certify professional status, and two examples will highlight some of these problems. A recent directive by the Examining Board of a certain State-based professional group outlined a change to standard-scores for describing final year students' performance on a comprehensive multiple-choice examination of professional knowledge[2]. From the information given one could deduce that the Board would anticipate an annual graduation (or certification) rate of about 84 per cent of candidates. (The suggested cut-off score was one standard deviation below the State population mean score.) On the basis of this examination alone (which raises additional questions about its validity and reliability) some 16 per cent of the three-year trainees will automatically be denied professional status in a given year. Only recently has that Examining Board attempted to include assessment of practical skills in their formal State-registration examination. The problems mentioned here are not exclusive to that profession. However this example highlights difficulties implicit in

any system which certifies professional status on the basis of statistical criteria alone, rather than the achievement of predetermined competences. This particular certification issue is better known as the argument for competency or criterion-based assessment in preference to norm-referenced assessment[3].

The second example is drawn from the medical curriculum offered at a progressive Canadian university[4]. Its medical students are not required to attempt any formal examination during the entire course. The onus placed on each student is to generate self-improvement by frequent reference to peer-group evaluations and feedback on formative assignments from various tutors and academic supervisor. These data form the basis for the faculty's recommendation for graduate status and hospital internship. However ultimate responsibility for allowing graduates from any medical school to practise medicine in Canada rests with a national registration board. The Licentiate of the Medical Council of Canada (LMCC) examinations are a formidable set of (six, three-hour multiple-choice) tests of medical knowledge. In common with the example given earlier, no attempt is made to examine clinical or practical skills.

The tragedy of this situation is that medical graduates from this Canadian university are competent problem-solvers who, in the intervening six weeks between graduation and LMCC examinations, must devote frenetic energy to the acquisition of medical knowledge and to becoming adept at answering multiple-choice questions. To their credit, they reportedly perform no better or worse than graduates from more conventional medical faculties in Canada.

These two examples highlight practical difficulties inherent in systems currently used to certify professional status. In the first example, the granting of graduate status and professional certification were identical processes based on the same examination. It raised the problem of norm-referenced certification, since this tended to ignore consideration of the desired skills. Initiatives in competency-based examinations for final-year medical students have been successfully carried out in Adelaide[5]. The second example highlighted the difference between graduate status and certification to practise medicine. Students faced unrealistic pressures as a result of the mismatch between the two requirements.

There is a second issue concerning the certifying role of examinations. It relates to their specific reliability and validity. Using traditional medical examinations as a guide one might be forgiven for assuming that knowledge is the yardstick of professional competence. However knowledge, particularly in the health sciences, has two mortal characteristics. It has not only rapidly expanded within the last decade (which makes its assessment highly idiosyncratic) but it is even less immutable than ever before. Hence tests of knowledge alone may not be valid measures for certifying professional status. The ability to continually modify one's skills, knowledge and attitudes in solving new problems would seem more realistic and professional than acquisition and stereotyped reproduction of the attributes themselves. Of course the reliability of any certification process is fundamental to "attesting the fact" about a person's competences. As the distinction made between the characteristics of professionals and non-professionals becomes

clearer, it should also lead to the development of more reliable and valid procedures to certify professional status.

What is the educational role of assessment?

Again, a fleeting reference to the Concise Oxford Dictionary showed that to "educate: is to train mentally and morally; to train (person) to do". In educational jargon, this is tantamount to describing knowledge, attitudes and psychomotor skills. These three aspects form the basis of many competency-based educational programmes, and the undergraduate medical curriculum at Newcastle University is no exception. Pre-stated learning objectives are defined for individual clinical problems. At the end of each academic term, each student is assessed on his demonstrated competence in integrating these objectives to solve a variety of unseen medical problems. In designing a comprehensive assessment programme which reflected the Faculty's general educational philosophy, the following principles or roles emerged[6].

Any student assessment should:

(i) provide students with opportunities to demonstrate application of knowledge, attitudes or skills where appropriate, and not just the recall of information;

(ii) test for problem-solving and problem-management as the most important applications, besides the use of the underlying sciences in justifying decisions;

(iii) allow students who can complete learning tasks earlier to proceed with elective studies (to follow their own interests, and promote independent learning), but at the same time

(iv) allow the other students more time and guidance to achieve competence without the problem of intervening (new) learning tasks;

(v) provide rapid knowledge of results, with an emphasis on diagnostic information to allow students to monitor their own progress and plan remedial studies;

(vi) be an open system, where standards are known, and where the required levels of competence are stated beforehand;

(vii) encourage assessment of their own and their peers' performance as a means toward their own further education through observation, discrimination and decision-making;

(viii) encourage students to carefully evaluate this and other aspects of the educational programme, towards their future skills in adapting to and fostering change responsibly ([6], p. 174).

The rapid development of the Faculty's assessment programme during its first year of operation is now well-documented[6,7,8]. By the end of third term (1978) the Assessment Sub-Committee had produced a working model of an assessment programme which seemed acceptable in the main to students and offered a reasonable compromise between education and certification roles. However, no two years are ever the same! Term 4 (1979) was particularly strenuous (but stimulating) for students and precipitated a set of recommendations from them about changes in the timetabling, format and regulations governing assessment. Basically they felt a strong imbalance between roles due to unnecessary certification strictures on their development.

What was the conflict of interests between the two roles?

A conflict was possible from two kinds of situation. One was that both education and certification roles were sufficiently vague or poorly-defined for assessment to preclude any satisfactory resolution. This alternative was considered highly unlikely in view of the pre-stated philosophy on examinations in this educational programme. The other was that each role was clear, but mutually antagonistic - in timing or function. A mid-year (1979) review of the separate roles of assessment was also made by the Assessment Sub-Committee and the following features emerged in relation to the earlier-mentioned education roles (i)-(viii).

First, students were dissatisfied with the relatively low proportion of items testing application of learning. They felt too many items tested factual recall or basic pattern recognition. Assessors admitted it was much harder to construct items testing problem-solving (application of learning) than those of medical knowledge. Some felt uneasy about providing and accepting broad model answers to the former items, while other assessors insisted on setting items mainly testing knowledge. More appropriate guidance in item construction was an obvious solution to this conflict. For those students whose problem-solving skills were not evident on the written assessment, the conduct of oral supplementary assessments with two examiners was seen as an effective way of resolving earlier doubts on each student's competence.

Second, tests of problem-solving and patient-management were notably more difficult to construct for first-year students. Reasons for this were more in relation to curricular orientations and the disparate choice of clinical problems (particularly in the introductory term 1) than to theoretical educational issues[9]. Another conflict in the assessment of these aspects arose due to the Faculty's pre-occupation with clinical problem-solving. Assessors with basic sciences backgrounds often argued that problem-solving could also be examined, and with more rigour, within their particular disciplines. Although there were adequate opportunities for this via formative assessment there was no legitimate way of ensuring that students would attempt them. This conflict essentially remains unresolved, although the introduction of computer-aided instruction as a curriculum resource may provide the

necessary stimulation for students, and data sources for more effective and broader problem-solving assessments.

Third, there was no difficulty in allowing students who completed learning tasks earlier in the term to proceed with elective studies for the remaining period. However a real problem emerged in relation to the rest of an intake, which was caused by the indirect pressure on those students to attempt the first assessment whether they were ready or not. Even with the diagnostic and remedial support available to each student on the basis of this assessment, the fortnight's grace before the second assessment for that term turned into a tense period of recuperation. Holding second assessment immediately after the term vacation did little to alleviate the claustrophobic atmosphere. In brief, the timetabling of assessment was jeopardising the education roles. This conflict was resolved by allowing students to "carry" any failed assessments over the remainder of the year, and by replacing the single, written second assessment with multiple attempts at oral deferred assessments when the student felt he was able to demonstrate his competence. However a different conflict may now be created. Students may choose to ignore their "failed" terms until the end of the year - at which stage they face the formidable task of regenerating greater numbers of competences. Alternatively, they may worry excessively about repatriating the failed term(s) - to the detriment of their concurrent studies.

On the fifth educational role mentioned for assessment, concerted efforts have been made by the assessors to identify specific areas of deficiency in performance. The overall judgement of each students' competence for a term is not based on a rigid, pre-determined percentage of satisfactory item responses. It is based (albeit arm wavingly) on the assessors' judgement of the likely hindrance to the student's subsequent progress caused by the identified deficiency. Both student intakes have accepted this procedure quite readily. They are recommended to review their examination scripts and the assessors' specific comments in their own time, or together with the faculty member identified to assist their remediation.

The sixth role proved to be a very important one to students in relation to the traditional mystification surrounding the marking of examinations. Faculty felt that the best way to resolve this long-standing conflict was to introduce a formal meeting between assessors and students each term. This period was scheduled originally as an opportunity for students to participate in, and discuss the model answers given for, marking examination scripts. Any alternative answers to items considered acceptable by the panel of assessors would be noted <u>prior</u> to the actual marking. Similarly, any items judged ambiguous by students might be deleted for marking purposes.

The seventh principle was closely linked to the sixth in practice. The Faculty had attempted to convince students on the virtues of the assessment Review session - but with moderate success. Suffice to say, the original staff-centred organisation of these sessions was too idiosyncratic on the panel of assessors and the personality of its chairman. The students wanted to conduct the session themselves, free from staff influence. The changed format has been highly successful for both intakes and ironically, is far more commensurate with the original programme objectives relating to self-evaluation and peer review.

Briefly, the eighth principle continues to cause a conflict of interests. Formal student evaluation sessions conducted by a non-faculty member at the end of each term have varying levels of patronage. The first intake has tended to avoid formal sessions, but these students were instrumental in recommending changes to the assessment programme and regulations after their Term 4 experiences. The conflict with Faculty interests is that it is difficult to get representative data from this intake which will promote other changes to the educational programme for subsequent intakes. However, in view of their unique position in the Faculty this may be equally beneficial until the system has had a chance to operate properly.

In summary, this paper has identified some of the essential features of the certifying and educating roles which can be expected of examinations. In each of the situations described the conflict of interests between these roles in the medical faculty at Newcastle has been resolved by open and constructive criticism for change. In proceeding with these changes it has been invaluable to refer to the clearly-defined educational programme objectives of the Faculty. That the innovative nature of the assessment model continues to survive is a tribute to the flexible, problem-solving approach made by both students and faculty.

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Professional accreditation

E. Stokes

Most professions require those who wish to join the profession to undertake a course of study in an academic institution, followed by a period of practical experience. In some professions candidates are also required to sit for separate examinations set by the profession or by a controlling statutory body. In the former case the profession or the statutory body accredit courses of study.

In the process of accreditation there is communication between the profession and the teaching institution which can prove to be beneficial to the teaching institution. The paper will examine this relationship.

In recent years, in addition to the traditional relationships between the teaching institutions and the professions, a number of statutory accreditation bodies have been established. Generally the approval of these bodies is required before government funds are allocated to a course of study.

The complexity of the resulting accreditation process and the conflicting requirements that may be established deserve close examination. A point has been reached where the process may be detrimental to the educational process.

The reasons for maintaining an accreditation mechanism for professional courses will be examined and an endeavour will be made to establish guidelines for the process which will preserve professional standards but allow educational innovation to take place.

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1. PREAMBLE

In this paper the accreditation of courses of study which grant admission to well defined professions is discussed. The discussion leads to some principles which may have application in more general accreditation systems. However, the accreditation of courses, other than professional courses, is not specifically discussed.

2. HISTORICAL BACKGROUND

The early history of the Medical Profession gives some insight into the origins of the current practices of professional accreditation. In England, in the reign of Henry VI, Gilbert Kymer appeared with two surveyours of the Faculty of Physic and two Masters of the craft of Surgery before the Mayor of the City of London to seek authorisation for a professional organisation. Their rules were meant to ensure that practitioners were properly qualified, and were rewarded "measurably after the deserving of their labour". They were also to treat the poor and needy free of charge and search the shops for quack remedies and pour them in the gutter. It is doubtful if the petition was ever granted and the Physicians went on to higher status whilst the Surgeons lost status and became associated with the Barbers. They were not again united in one profession until many years later.

In 1518 Henry VIII granted a charter to the Royal College of Physicians, largely due to the efforts of Thomas Linacre who had been

educated at both Oxford and Padua. The subsequent Act of 1522 stated "that it was necessary and expedient to provide that no person be suffered to exercise and practice physic and only those persons that be profound, sad and discreet, groundedly learned, and deeply studied in physic." No person, except a graduate of Oxford or Cambridge, should be allowed to practise physic unless examined and approved by the College. The College also had oversight of physicians and the scrutiny of medicines. (1)

The systems of education for the professions gradually evolved over the years with our present systems largely evolving over the past 150 years. In many professions, prior to the development of formal professional education, candidates for the profession were articled to practitioners who were responsible for developing both their theoretical and practical knowledge. After the completion of articles the candidates were admitted to practice. In many cases good social connections were more useful than academic competence. The community gradually became concerned about the competence of professional people and more effective systems of regulation were set up. These generally consisted either of statutory requirements leading to registration, or of tighter control of entry standards by the professions themselves. Statutory control is exercised in Australia in the areas involving health, public safety and law. The statutory licensing provisions are generally the responsibility of the states and may require candidates to sit for examinations set by the statutory authorities or alternatively the authorities may accredit certain academic courses. The professions, likewise, may set their own entry examinations or accredit academic courses. On the whole, there has been a move, over the years, away from formal entry examinations to accrediting of courses conducted in Universities and Colleges.

Almost all professions now require entrants to undertake a formal course of study in an academic institution followed by a period of supervised practical training. In some professions this initial period may be followed by further study and experience to gain a specialist qualification. With the rapid rate of development of knowledge and practice many professions have become concerned about the ability of their members to keep up to date. This has lead to consideration of compulsory continuing education as a requirement for professionals to retain their accreditation.

The use of qualifying examinations, set by statutory or professional bodies, has often been criticised on educational grounds. In Australia these examinations provided a means of entry to many professions for over a century. Candidates studied as best they could and then sat for the qualifying examinations.

Professor W.C. Kernot, the first professor of engineering at the University of Melbourne, was a particularly trenchant critic of such examinations. (2) In 1898 Kernot wrote :

> Examinations, unless conducted with great care, may do harm and even with the utmost care will sometimes give fallacious results. I confess I do not like examinations standing alone so to speak.

> All examiners have their peculiarities, their pet subjects, and their favourite ways of looking at them. A system of cramming springs up, and all the little idiosyncrasies of the examiners are keenly observed by the crammers. The result is that a good man uncrammed will fail, and a very inferior man judiciously crammed will pass.--- Great judgement is needed to make a sound examiner. I question whether any one can really be a proper examiner unless he has had large teaching experience, and is able to fully enter into the difficulties and confusions of mind of beginners. The good examiner is broad-minded, sympathetic, anxious to discern the points of merit, to sift the wheat from the chaff. He appreciates the trouble of the learner, and allows for the haste, excitement and generally unfavourable condition under which examinations are held. Such a one is a treasure, for he is rare.

Kernot was a perceptive, innovative and farsighted man with a refreshingly sound view of the principles of good education. He did not live at peace with the bureaucrats of his day.

During the period of development of formal accreditation procedures the mechanisms used to accredit academic courses have ranged from simple acceptance of courses to elaborate accreditation procedures. At the one extreme, virtually no formal control has been exercised over teaching institutions; senior academics have served on statutory boards and councils of professions, providing an effective bridge between the teaching institutions and the bodies concerned. This practice follows the tradition established by the acceptance of Oxford and Cambridge graduates by the Royal College of Physicians in the time of Henry VIII.

With the proliferation of teaching institutions in recent years more formal arrangements have been adopted. These arrangements have generally required the teaching institution to make a formal submission and undergo inspection by an accrediting panel.

In extreme cases accrediting bodies have prescribed detailed syllabuses which teaching institutions are required to follow. It is suggested that this latter practice is educationally undesirable in that it limits the freedom of teaching institutions to design effective courses.

3. THE CURRENT POSITION

With the rapid development of tertiary education since the publication of the Martin Report in 1964, a number of controlling bodies have been established at state and commonwealth level. In the Universities these bodies have concerned themselves with course viability and distribution of funds. In the Colleges of Advanced Education they have also concerned themselves with the detailed accreditation of courses.

The recently amended Victorian Post Secondary Act provides for the Post Secondary Education Commission to approve of all new courses and major amendments to existing courses in both the Universities and Colleges of Advanced Education in Victoria. It also provides for an Accreditation Board to accredit courses in the Colleges unless the Commission deems that a College is capable of adequately controlling the academic standard of its courses.

The working out of this arrangement in Victoria will be viewed with interest by those who are responsible for the design of courses in the Colleges and also by the professions.

The recent Committee of Inquiry into the Engineering Profession in the United Kingdom (The Finniston Committee) (3) has proposed "external accreditation by a statutory national authority to ensure high standards and continuing relevance". The provision is to apply to both Universities and Polytechnics offering professional engineering courses. The recommendation was grudgingly accepted by the Vice Chancellors and openly rejected by the Staff Associations. The Finniston Committee was concerned about the decline in the economic power of British manufacturing industry and saw a need for considerable reform of British engineering education. The accreditation model proposed was essentially based on one currently used to accredit engineering courses in the United States of America which is operated by the Engineering Council for Professional Development (E C P D).

Professions endeavour to control the standards and conduct of their members in the following ways:

i) by controlling the basic education and initial practical experience of candidates for the profession.

ii) by the enforcement of a code of ethics.

iii) by the provision of learned society activities to allow exchange of ideas and to keep members aware of new developments in professional practice.

iv) by supervision of standards of practice.

In general, whenever the competence of a profession is questioned, an endeavour is made to tighten the control of the profession over the education of candidates for the profession. This is generally easier to achieve than detailed supervision of the conduct and skill of the practitioners.

A point has now been reached in professional education where the coupling of professional accreditation with general accreditation is resulting in a complex bureaucractic procedure which may place conflicting demands upon the teaching institution. There is a risk of academics designing courses to satisfy their perceived view of the requirements of accrediting bodies and the idiosyncracies of those who serve on the bodies. In the long term this is likely to inhibit educational innovation and lead to stagnant courses.

The steps which have to be followed to obtain accreditation of an engineering course in a Victorian College are shown in Appendix A. If the course being accredited raises policy issues further sub-committees may be injected into the system to deal specifically with the issues.

The process is rather like a game of snakes and ladders played on a board with snakes and no ladders. One never goes forward any further than one deserves and one may at times go backward. A point has been reached where the cost and educational effectiveness of the whole process needs to be critically examined.

4. THE NEED FOR ACCREDITATION

At the outset it must be asked what accreditation procedures measure and control. It is interesting to note that even though the prestigious privately funded engineering schools in America rarely seek formal accreditation their graduates are eagerly sought after.

Accreditation may ensure that the right environment is present for good education to occur, it is doubtful if it can ensure, absolutely, that good education will occur. There are, nevertheless, sound arguments for ensuring that an environment is present in which good education can occur, particularly when the institutions concerned are in a state of transition.

In this paper it is proposed to restrict the discussion of the need for accreditation and the form which accreditation may take to professional courses.

As a foundation for the argument, it is suggested that the following propositions are a reasonable concensus of public opinion upon which to base such arguments.

i) In a publicly funded education system, which is competing for funds with other desirable community activities, it is necessary to ensure that the courses offered are needed by the community on utilitarian or cultural grounds.

ii) The community has a right to expect that people offering their services as professionals have received a satisfactory education and achieved a prescribed level of competence.

iii) Any student entering a professional course has a right to expect that he will be taught current and relevant material and that he will find himself in an environment in which he can develop his latent abilities to the full. He should also expect to be taught in a manner which will ensure that he can cope with change during his career.

The first proposition is concerned with the viability of courses or areas of study and will not be pursued in this paper. The second and third propositions form the basis of arguments for a system of accreditation.

It is most important that arguments about viability and accreditation are clearly distinguished. The minimum requirements for accreditation, however, do set the level of resources required in arguments about course viability. Viability is concerned with community needs and economics, accreditation is concerned with quality of education.

5. THE MECHANISMS OF ACCREDITATION

The determination of the standards of professional practice in a particular profession is a complex issue which is largely arrived at by concensus within the profession. As a result of new discoveries, what was acceptable practice ten years ago may not be acceptable today. As the skill of the professional increases so do community expectations. In an undergraduate professional course the following elements may be found:

> Fundamental knowledge which is well established or subject to a slow rate of change, (the fundamental principles of mathematics).
>
> Knowledge, which has a degree of uncertainty, which may be rapidly changing but which represents the best material available at the time.
>
> Skills, both intellectual and manual, which are needed by the practitioner in his everyday work.
>
> Principles of professional conduct (ethics) and other material which enables the professional to interface with the community at large.

It will be recognised that there are tangible and intangible elements within this list. The intangibles are very difficult to measure, even for staff who are constantly in touch with a body of students. It may be virtually impossible for an accreditation committee, consisting of outsiders. to measure them. For example, how does one measure if an engineering or architecture course is likely to produce creative designers?

It is also interesting to note that both academics and accreditation committees are not held responsible for the incompetent or unethical practices of their students in later life.

It is possible to draw up a list of items which an accreditation committee may reasonably examine. The list will include:

> The course rationale.
> Formal syllabuses, including prescribed reference material.
> Formal examinations and other assessment procedures.
> Laboratory work,field work, clinical work.

Physical facilities, equipment and library.
Ancillary services.
Adequacy of staff numbers.
Adequacy of support staff.
Qualifications, experience and activities of Academic staff
e.g. qualifications
published work
research interests
professional interests
community involvement
teaching ability
educational innovation

The accreditation committee may talk to staff and students to gain impressions of attitudes within the teaching department. Another possibility, which requires the course to have run for a while, is to look at the careers of graduates from the course. The method is used by the community and often reflects in students showing a preference for well established prestigious teaching departments. It does have some difficulties as a formal accreditation procedure, not the least of which is the time taken to obtain feedback. Beyond this point there has to be a reliance on the fact that competent professionals, conducting an academic course, should be capable of exercising a degree of independent judgement in the design of a course. They should also have the freedom to make rapid adjustments to a course to meet developments in knowledge or practice. It should, in fact, be a requirement of accreditation that a mechanism to effect change is present, in the teaching department.

Competent academics, observing students over a three or four year course, should also be the people best able to determine if the students have gained the knowledge and competence necessary for them to enter the initial period of professional practice. After a period of supervised practice it is then for the profession to finally decide whether the candidate should be admitted to the full membership of the profession.

6. WHO SHOULD CONDUCT ACCREDITATION?

It is submitted that accreditation should be conducted by a single, properly constituted body at reasonable intervals of time. In a well regulated course it should not be necessary to reaccredit at less than three to five year intervals.

For the academic staff, the most valuable functions of a formal accreditation procedure will be the establishment of aims and objectives for the course and the careful planning of the material of the course. A course needs to be planned by the staff who will teach the course within the teaching institution. The planning group may then benefit from discussions with a critical, informed, yet sympathetic group of people to ensure that the aims of the course are realistic, the material relevant and the educational methods sound.

Such an accrediting group can also examine the routine matters listed earlier and assist the course planners to maintain proper standards

relative to other courses of a similar nature.

With the need to maintain the confidence of the community in the competence of professional people, it is desirable that each profession plays a major role in the accreditation of courses of study in its area. The judgements about suitability and relevance of the material in the course must be made by the members of the profession.

There is also a need in undergraduate education to ensure that the course is based on a sound philosophy of education. This will largely be concerned with the role of the professional as a member of society and will ensure that the professional can see his work in the context of the society of which he is a member.

Finally, there is a need to ensure that the educational methods used to teach the course are sound and that adequate resources are available.

This points to an accrediting panel consisting predominantly of members of the profession, both practitioners and teachers, together with people who can look at educational philosophy and method. The group must be prepared to discuss the course freely with those responsible for its design. It must also be prepared to acknowledge innovation and progress.

In this way a reasonable measure of control over standards can be maintained without maintaining a weighty bureaucratic process that will ultimately stifle innovation and development.

7. SUMMARY

i) The community will continue to demand control over the standards of education in professional courses.

ii) The setting of prescribed syllabuses by a central body is rejected as being educationally unsound.

iii) The granting of complete freedom to the academic instituion to design and conduct its courses, with the students then being required to sit for an external licensing examination, is seen as providing inadequate assessment of the candidate and the possibility of unsound education.

iv) The best compromise is obtained by allowing a teaching department to design its courses and examine its students. The course should be accredited by a single competent panel, consisting of members of the profession and people competent in educational philosophy and method.

v) The accreditation panel should determine that the philosophy and modus operandi of the course are sound and that adequate staff and resources are available.

vi) In the last resort the standards of education depend on the professional competence, scholarship and enthusiasm of the teachers.

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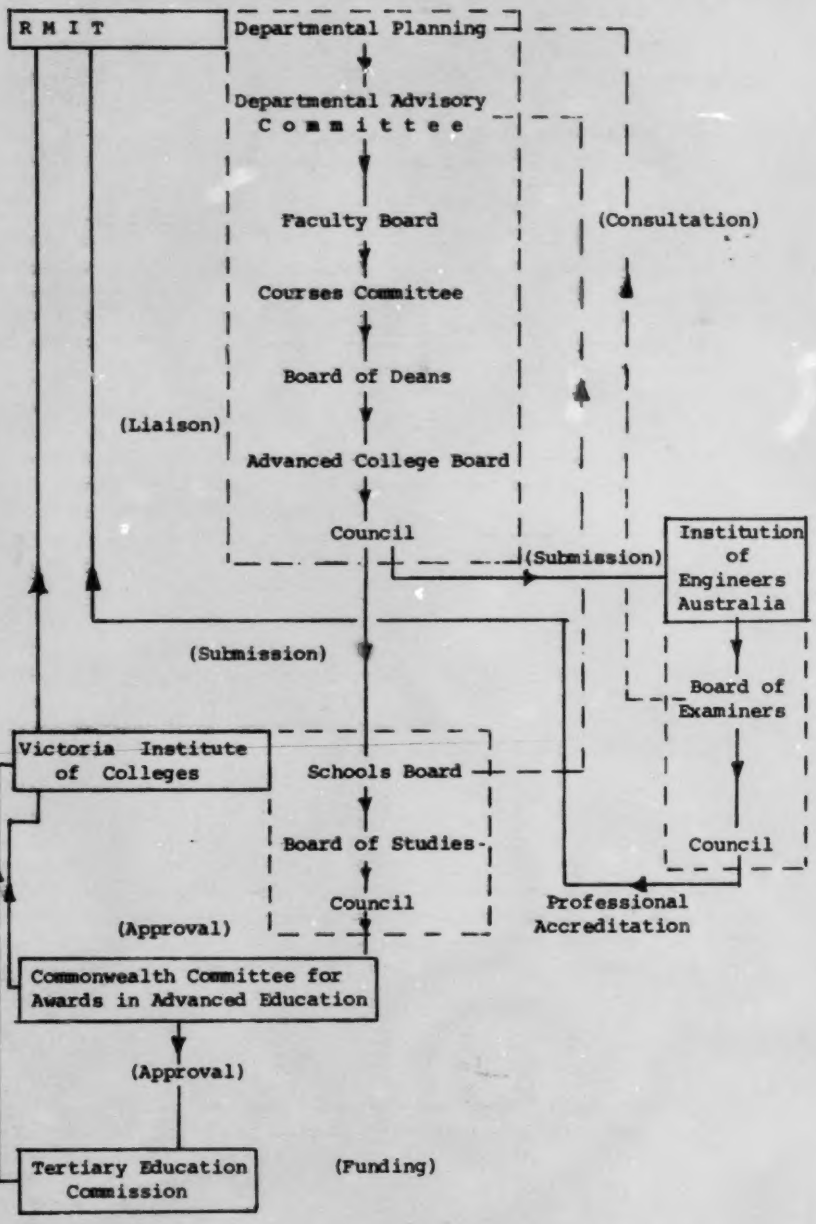
APPENDIX A - COURSE ACCREDITATION



Influence of accreditation procedures on academic course planners: Observations based on a study of six courses in Victorian CAEs

R. Wellard

The course accreditation system for C.A.E.'s is widely regarded as having provided a high level of assurance of academic credibility and quality in new courses. However a study of the decision making in six courses approved through the Victoria Institute of Colleges and the State College of Victoria raised important questions about the influence of formal administrative procedures on academic staff who were involved in planning courses. These questions concerned the time taken and sequence of various phases of course development and formal accreditation; the relative interplay of educational and administrative considerations in decision making; the influence of administrative procedures on the types of decisions made; the motivations of academic staff in course planning; and the possible effects of different formal review procedures on the quality of implementation.

1. NATURE OF THE STUDY

The study focused on the nature of planning decisions made in the development of new courses for approval in Victorian Colleges of Advanced Education. Six new course developments approved in the years 1977 and 1978 were selected as case studies. Data were collected on these courses from the point of initiation of the developments through to the point of final approval by the Victoria Institute of Colleges (V.I.C.) or the State College of Victoria (S.C.V.) and was obtained from minutes of meetings, course documents, correspondence and from interviews with principal participants in the decision making.

2. THE SYSTEM OF COURSE ACCREDITATION

It should be noted that in Victoria recent developments in the co-ordination of post-secondary education have included the establishment of the Victorian Post-Secondary Education Commission (V.P.S.E.C.) and the progressive transfer of V.I.C. and S.C.V. responsibilities to this body. In November 1979, the V.I.C. Council resolved that responsibility for all course approvals for 1982 and thereafter, be transferred to V.P.S.E.C.. Recent legislation, passed by the Victorian Parliament this year, has provided for the appointment of an 'Accreditation Board' to investigate courses and advise the V.P.S.E.C. on their accreditation. As a consequence of this, course accreditation procedures appear to be in a state of flux. A critical review of strengths and weaknesses of the system is thus very timely.

The V.I.C. and S.C.V. had evolved broadly similar administrative procedures to be followed by colleges in planning new courses for accreditation. These procedures established review mechanisms for an initial course proposal and a subsequent final course submission and set down requirements for the content of course proposals and course submissions. Each authority had a governing body which delegated responsibility for carrying out accreditation procedures to a supporting committee structure. A course which received approval of state authorities normally would be submitted to the Australian Council on Awards in Advanced Education for national registration of the award for the course.

Houston and Harman (1979) cited numerous criticisms of the course accreditation process. These included:

* Lack of uniformity in procedures
* Unsatisfactory composition of committees reviewing course submissions
* Unclean and/or inappropriate criteria used to judge course submissions
* Confusion over the nomenclature of awards
* Excessive demands placed on college resources in preparing submissions
* Time delays in gaining approval

In spite of these criticisms, by and large the benefits of the system were widely appreciated according to Houston and Harman. Strengths of the system included:

* Reasonable assurance of the academic credibility of new courses
* Encouragement of outside involvement in course development and the activities of colleges
* Assistance in the maintenance and improvement of educational standards

Findings of the present study provided confirmation of criticisms regarding time delays and raised a number of other issues in relation to course accreditation which warrant closer investigation.

3. PLANNING TIME

There was considerable variation in the amount of time taken in planning the six courses selected as case studies. The total planning period was between 23 months to 72 months in the six courses. The proportion of this time occupied by the formal decision-making process through the committee structures of the V.I.C. and/or S.C.V. was between 20% and 50%. Five of the six courses contained phases of decision-making in which detailed course development proceeded at the individual colleges even though the process of formal approval of initial course proposals had not been completed at the V.I.C. or S.C.V.. This can be attributed to a combination of three factors. Firstly, there were time lags by the V.I.C. and S.C.V. in undertaking and completing the process of formally reviewing initial course proposals. Secondly, there appeared to be a deliberate effort on the part of some college course planners to maintain the momentum of the course development rather than await formal approval of initial course proposals by the V.I.C. or S.C.V.. Thirdly, in the case of two of the courses, it is likely that the colleges course planners acted on informal advice and proceeded to full development of the course once their initial course proposals were recommended by the first committee of review within the V.I.C./S.C.V. committee structure.

The V.I.C. and S.C.V. both provided annual time deadlines for colleges to submit initial course proposals and full course submissions. These deadlines were intended to provide adequate time for the formal review of proposals and submissions to occur. However, these deadlines were not adhered to when the six courses were being developed and in some cases time delays in the formal processing of course submissions may have had deleterious effects. There was evidence that college course planners felt relatively powerless to influence events, became frustrated and increasingly questioned the objectivity and wisdom of V.I.C./S.C.V. committee members. Time delays meant that further detailed course planning in preparation for implementation of courses tended to be brought to a standstill in some cases. Houston and Harman (1978) indicated that colleges often argued that they were unable to respond quickly to identified community needs because of the time taken to formally process course submissions. The study provided clear evidence that the period between developing an initial proposal and gaining final approval of a full course submission was often a very lengthy one. Over such periods of time there could be substantial changes in educational and community needs.

4. EDUCATIONAL VERSUS ADMINISTRATIVE CONSIDERATIONS IN DECISION-MAKING

The findings of the study indicated that another important area of concern was the relative interplay between educational considerations and administrative considerations in planning the six courses.

Administrative procedures and guidelines existed in relation to:

(i) The broad phases of course planning
(ii) The format of initial course proposals
(iii) The format of full course submissions
(iv) The time deadlines for making submissions

Because the format of initial course proposals was prescribed there was evidence that course planners made decisions on detailed course matter to comply with format requirements, rather than on the basis that the decisions were intrinsically important in planning courses. This also tended to be true in relation to the full course submission. Whilst course structure and content decisions appeared to be intrinsically important to course planners, decisions on need tended to be directed towards justifying the course to the V.I.C./S.C.V. and other decisions were often superficial in nature to comply with format requirements. Initial course proposals typically did not contain any detailed evidence of proposals in the light of the initiating college's educational aims and existing and proposed courses in other colleges.

Administrative procedures strongly influenced both the type and sequence of decisions made in planning the six courses. In five of the six courses, decisions made in the formal reviewing of the initial course proposals and full course submissions, accounted for between 40% and 50% of the total planning decisions recorded. A substantial part of these formal decisions related to the initial course proposal or full course submission as a whole, rather than to detailed course matters. This

meant that a large volume of duplicated documentation passed through formal committees, and was not subject to detailed scrutiny. In some of the courses, there were detailed course matters about which no decisions were made over the entire planning period. These matters included teaching methods, assessment methods, evaluation and administration. The formal reviewing process failed to identify these omissions.

The requirement that initial course proposals and full course submissions be developed according to prescribed guidelines seemed to produce a norming effect on decision-making by precluding or minimizing consideration of divergent or creative solutions. Between the phases of formal decision-making which tended to occur in long cycles, there were formal decisions developing, appraising and amending detailed course matters in a manner aptly described by Kirst and Walker (1971) as 'serial analysis and piecemeal alteration'.

5. MOTIVATIONS OF COURSE PLANNERS

The study revealed that course planners in the six courses in general worked extremely hard in attempting to develop courses which reflected the collective wisdom of other staff, course committees and representatives from industry and professional groups. Notwithstanding this, there was in a number of the courses, evidence of what might be termed 'academic entrepreneuralism'. In some cases, courses were initiated partly in response to the V.I.C. master planning process which invited proposals from colleges. Proposals were developed and submitted without much regard for the demand or need for courses. (Factors such as the academic plans of the college and the expertise of the staff seemed to be of greater importance.) In one case, a staff member was specifically appointed in the initial phase of planning to develop and eventually implement the course. Planning was based largely on the conviction that this was an appropriate area of development by the college rather than a demonstrated need.

The use of needs data provided further evidence of 'academic entrepreneuralism'. In no course was needs data collected in order to genuinely question whether the course should be developed. Needs data was typically collected in the full course development phase and consequently course planners had made a considerable investment of time and energy in planning the course. This may explain why needs data were mainly directed at justifying the course and were always interpreted in the most favourable light rather than objectively reported.

There was evidence of the existence of vested political interest in the formal processing of two of the courses. One course was subject to a protracted period of review by the V.I.C. Liaison Committee on Sub-Professional Courses. This appeared to be a result of political conflict between T.A.F.E. authorities and the V.I.C., as much as any matters of concern with the course itself. The other course experienced difficulty in gaining a recommendation for approval from a V.I.C. academic committee. There was evidence that this committee's attitude was influenced by the views of a member who was from another V.I.C. college which had strong involvement in similar courses. The initiating college on the other hand had no representative on the committee.

6. FORMAL REVIEW AND THE QUALITY OF IMPLEMENTATION

Houston and Harman (1978) indicated the general nature of a problem which remains largely unanswerable unless research is undertaken on the implementation of approved courses.

> A course proposal may be judged to be of high quality; appropriate staff, facilities and resources may be available; but this does not automatically guarantee high quality of outcomes. (p. 65)

In contrast to those of the V.I.C., S.C.V. procedures included provision for a much more detailed review of course submissions by accreditation sub-committees. Consequently, in the case of one of the six courses, selected because it was developed within the S.C.V. system, there was considerable amendment and further development of detailed course matters contained in the full course submission before it was finally approved. This level of detailed review and amendment did not occur during the formal processing of any of the other V.I.C. based courses. The difference between the V.I.C. and S.C.V. in this respect might be expected to produce differences in the quality of implementation, however, little is known about this fundamental question.

7. CONCLUDING DISCUSSION

The findings of the study provided evidence that administrative procedures had a pervasive influence on the planning process, in that they tended to circumscribe the influence of educational considerations by placing emphasis on formal requirements.

It is interesting to speculate what the planning process might have been if the central purpose of an initial course proposal was to demonstrate that a need existed and if there was a relative freedom from formal guidelines, administrative time requirements and formal committee structures. It is possible to argue from theoretical models of planned change, that identification of the need for programmes is an important initial phase of planning, (e.g. Zaltman, Florio and Sikorski, 1977). If this was the prime task which course planners had to undertake before proceeding, it is likely that further detailed course development would be much more solidly grounded on an effective information base. Relative freedom from administrative constraints after a need was demonstrated, could permit course planners to base their decision-making more strongly on perceived educational considerations. Planning might incorporate a more systematic decision-making process which involved problem diagnosis, creative consideration of alternative educational strategies and models, and provision for evaluation of implementation.

This sort of speculation raises important questions about the professional attitudes of course planners. If they were able to develop courses within the context of relative freedom, course planners would need to demonstrate a high level of academic responsibility and

professional competence. Whilst the study revealed isolated examples of 'academic entrepreneuralism' and vested interest, the general quality of the decision-making process supports the view that providing greater freedom from administrative procedures and guidelines could result in course planning which is more strongly grounded on educational theory and practice.

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First year medical students' autonomy — Its impact on response to courses

G.A. Colditz & M.G. Sheehan

As an integral component in the introduction of a new curriculum by the Faculty of Medicine at the University of Queensland, an evaluation of the curriculum by a Faculty sub-committee was commenced in 1979. A set of characteristics of a competent medical practitioner, agreed upon by the evaluation committee, was subdivided into those which can be developed through courses based on didactic instruction and those which can be developed through less formally structured courses. Subjects were rated by students, at the completion of each semester, for the extent to which each encouraged or discouraged these characteristics. Two courses, "Introduction to Health and Society" and "Introductory Medical Sociology", were rated more highly than other subjects as encouraging these characteristics, that is: curiosity, ability to initiate self-directed activity; ability to be supportive and encouraging; ability to make decisions; self-confidence; empathy; and capacity to participate in one's own education. The more traditional preclinical subjects of Physics, Chemistry, Zoology and Introductory Cell Biology were rated most highly for encouragement of retentive memory; attention to detail; and punctuality, neatness and orderliness.

Furthermore, when the academic performance of students in their elective subjects was compared with their performance in the set course subjects, it was found that students attained significantly higher grades in the elective subjects. The implication of these findings in relation to student freedom and performance within professional courses will be discussed.

INTRODUCTION

It is apparent that the attitudes of all staff involved in health care delivery are basically responsible for all that is good or bad or controversial in modern health care. Consequently, the role of the Universities in promoting and influencing the attitudes of medical graduates is crucial. George Miller (1978) has recently stated, "We say we want sensitive, thoughtful, analytic, independent scholars, then treat them like Belgian geese being stuffed for pâté de foie gras". Likewise, Hilliard Jason (1979) has stated -

> We still have not acknowledged that the basic education in our profession does nothing to foster a lifetime of continuing growth and development. Indeed nearly everything that happens during our basic education mitigates ... the development of those skills and attitudes most necessary for a lifetime of continuing self-education and productive learning.

Statements such as these in the literature led the Faculty of Medicine Curriculum Evaluation Sub-Committee, established to evaluate the undergraduate medical course at the University of Queensland, to include in this evaluation a study of the extent to which the various courses taught within the Faculty were encouraging the development of characteristics considered to be those of a competent medical practitioner. The Evaluation Sub-Committee, after a review of the literature and considerable debate, agreed upon a set of 15 characteristics of a competent medical practitioner (Table 1). Students entering Medicine 1 in the first week of the 1979 academic year were circulated with the list of

15 characteristics , as were all Faculty academic staff. The five items selected by the Faculty as the most important are set out in Table 2. It is of note that four of the five characteristics selected by the students corresponded with those chosen by the Faculty staff, the only exception being that the students replaced the staff selection of capacity for empathy with ability to be supportive and encouraging.

MEDICINE I, 1979

The Medicine I course as introduced in 1979 following the curriculum review is set out in Table 3. Chemistry, Physics and Cell Biology were taught predominantly in lectures and set practical classes with assessment primarily centred on recall of material delivered in lectures and classes. However, Sociology and Introduction to Health and Society were taught and assessed with emphasis on student participation in seminars and assignment work. Students were given a free choice of topics for seminars and for much assignment work, as well as being able to pace the rate at which they covered the material. This is in contrast with the tutorials in Physics, Chemistry and Anatomy, which were still teacher-centred sessions.

THE EVALUATION

The data reported here represent a small segment of the overall evaluation data (Sheehan and Colditz, 1980) obtained by means of questionnaires which were circulated and completed by the students in the last week of each semester prior to their exams. A covering letter from the Dean stressed the confidential nature of the students' responses. In addition, an effort was made to have the questionnaires completed prior to the exams in order to remove the bias which would have resulted if students concluded their questionnaires after knowing how well they had done in each of the courses. Two hundred and thirty-four of 239 students in the year completed the questionnaires in first semester, as did 230 of 240 students in second semester.

RESULTS

When asked to indicate whether each subject encouraged, neither encouraged or discouraged, or discouraged each of the 15 characteristics of a competent medical practitioner, only 2 subjects were rated by more than 25% of the students as having discouraged any of these 15 characteristics. In both first and second semester, Physics was regarded by the students as discouraging curiosity. In addition, both Chemistry and Physics in each semester were regarded as discouraging interest and attention, and self-confidence.

With regard to subjects for which 25% or more of students felt the qualities of a competent medical practitioner to be encouraged by the course, the results of the students' ratings of the various subjects are set out in Table 4 (semester 1) and Table 5 (semester 2). In the students' first semester in tertiary education, all the subjects were rated as encouraging the students' participation in their own

education, yet in second semester, Chemistry and Physics were not rated for encouraging this quality. The lecture-based subjects (Chemistry, Physics and Cellular Biology) were regarded by students as encouraging flexible thinking, logical analysis, retentive memory, and attention to detail. In contrast with this was the response of students to Health and Society in first semester, and Introduction to Medical Sociology in second semester, these subjects being rated by 25% or more of students as encouraging supportiveness, empathy, and personal integrity, while they were not regarded to be encouraging retentive memory, attention to detail, and punctuality, neatness and orderliness. The rating by students for the Gross Anatomy segment of the course as encouraging loyalty to the profession of Medicine, may be explained by the fact that in this course students were being introduced to the basic skills of physical examination under the guidance of medical practitioners.

DISCUSSION

Allen Miller (1979) has recently stated -

> Fortunately for higher education, there are fewer examples today of large first year University classes where all students listen to exactly the same set of lectures, read the same text books, write the same essays or perform the same laboratory experiments, and sit for the same final examinations. Many of the changes in teaching methods adopted in recent years are described as attempts to suit teaching more to the needs of individuals than to some average student.

As may be evident from the earlier table displaying the teaching methods in first year medicine, we would argue that the lecture-based courses in first year (Chemistry, Physics, Cell Biology and Zoology) are in fact still very much aimed at the "average student". In contrast with this is the teaching in Introduction to Health and Society and Introductory Medical Sociology where the students are learning and assessed primarily through seminar work, the seminars being run primarily to meet the perceived needs and choices as made by the students.

While curriculum per se may be divided into the style of instruction and the content of the material included in the instruction, we believe that the results obtained in this study to date are a consequence of the style of instruction rather than the content. In support of this is the fact that students rated the Sociology course as having a heavy workload, having little relevance to Medicine, and being of little use as a background subject for further medical studies. Thus, any positive response in terms of characteristics which were encouraged by the Sociology course could not be described as simply a flow-on from a positive response to that subject. In fact, for each of those qualities just mentioned the Cell Biology and Anatomy courses both were rated more highly than the Sociology course (Sheehan and Colditz, 1980). We have concluded from these results that the subjects in which students are given the freedom to

pace the rate at which they acquire knowledge, and choose the areas in which their seminar groups would work, have resulted in the students developing the characteristics which the Faculty staff have considered to be the most important characteristics of a competent medical practitioner. However, several questions arise from this study. Firstly, with only two hours per week being spent in each semester on these subjects which are encouraging these characteristics, we could ask whether this is in fact an appropriate amount of time. Furthermore, if it is not, should more time be spent in these subjects, or should the other subjects in first year modify their teaching styles in order that these characteristics be encouraged?

The results of this study have been passed on to the Faculty Curriculum Committee and we await their deliberations on possible modifications to the first year course as a result of this data.

ACKNOWLEDGEMENTS

We wish to thank the members of the Faculty Curriculum Evaluation Sub-Committee for their assistance with this study.

TABLE 1

CHARACTERISTICS OF A COMPETENT MEDICAL PRACTITIONER

Curiosity

Flexible thinking

Ability to analyse a situation or problem logically

Retentive memory

Attention to detail

Punctuality, neatness and orderliness

Ability to maintain a high level of interest and attention over an extended period of time

Ability to initiate self-directed activity

Ability to make decisions

Self-confidence

Capacity to participate in one's own education

Ability to be supportive and encouraging

Capacity for empathy

Personal integrity

A high level of loyalty to the profession of Medicine

TABLE 2

MOST IMPORTANT CHARACTERISTICS OF A COMPETENT MEDICAL PRACTITIONER

FACULTY RATING IN ORDER

1. Ability to analyse a situation or problem logically
2. Personal integrity
3. Flexible thinking
4. Capacity for empathy
5. Ability to make decisions

TABLE 3

MEDICINE I, 1979

	COURSE						
	Two semesters			One semester			
	CH	PH	ID	ZL	AN	SM	SO
Teaching Method (hours)							
Lectures	3	3	3	2	1½	1	1
Practicals	2½	3	3	3	4		
Tutorials	1	1			½		
Seminars						1	1
Total weekly contact hours	6½	7	6	5	6	2	2
Assessment Method (column percentages)							
Lecture material recall	80	80	80	100	50	40	30
Practical work	20	20	20		50		
Seminar participation						40	40
Written assignments						20	30

CH - Chemistry
PH - Physics
ID - Cellular Biology
ZL - Zoology
AN - Anatomy
SM - Health and Society
SO - Sociology

TABLE 4

SUBJECTS FOR WHICH 25% OR MORE OF STUDENTS FELT QUALITIES TO BE ENCOURAGED BY COURSE

	SEMESTER I				
	CH	PH	ID	SM	ZL
Curiosity				*	*
Flexible thinking	*	*	*	*	
Logical analysis	*	*	*	*	
Retentive memory	*	*	*		*
Attention to detail	*	*	*		*
Punctuality, neatness, orderliness	*		*		*
Interest and attention			*	*	*
Self-directed activity	*		*	*	*
Ability to make decisions	*		*	*	
Self-confidence			*	*	
Participation in own education	*	*	*	*	*
Supportiveness				*	
Empathy				*	
Personal integrity				*	
Loyalty to profession			*	*	

CH - Chemistry
PH - Physics
ID - Cellular Biology
SM - Health and Society
ZL - Zoology

TABLE 5

SUBJECTS FOR WHICH 25% OR MORE OF STUDENTS FELT QUALITIES TO BE ENCOURAGED BY COURSE

	SEMESTER II					
	CH	PH	ID	SO	AN (E&H)	AN (GROSS)
Curiosity			*	*	*	*
Flexible thinking			*	*		
Logical analysis	*	*	*	*	*	*
Retentive memory	*	*	*		*	*
Attention to detail	*		*		*	*
Punctuality, neatness, orderliness	*				*	*
Interest and attention			*	*	*	*
Self-directed activity			*	*	*	*
Participation in own education			*	*	*	*
Supportiveness				*		
Empathy				*		
Personal integrity				*		
Loyalty to profession				*		

CH - Chemistry
PH - Physics
ID - Cellular Biology
SO - Sociology
AN(E&H) - Anatomy (Embryology & Histology)
AN(Gross) - Anatomy (Gross)

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PART IV

INSTITUTIONAL CONSTRAINTS ON FREEDOM

17. Change is disturbing: A rationale for innovation
T. Hore

18. Can the university teach environmental studies?
J.J.T. Evans

19. Australian university teachers' perceptions of reward structure
J.M. Genn

20. The rise and repose of an academic issue - A faculty at work
L.N. Short

21. Sources of political power in academia
B. Martin

22. A framework for selecting educational method in work organisations
J. Martin

INTRODUCTION TO PART IV

Academic freedom is not only restricted by government commissions, student pressure groups and professional organisations; it may be inhibited by academics themselves. Contributors to this part draw attention to some of the ways teachers and administrators in higher education restrict the activities of their colleagues and discourage innovation.

T. Hore refers to some of the literature on organisational change and discusses the relative value of strategies which have been proposed for initiating change. He claims that innovation is difficult to impose but must arise as a result of forces within an institution.

The theme is examined from a different perspective by J.J.T. Evans who questions whether universities, with their strong emphasis on specialisation and departmentalised knowledge, are fitted to teach such a broad field as "environmental studies". He presents evidence to support his contention that failure to give inter-disciplinary (or, as he prefers to call them, holistic) programmes full departmental status places such as programmes, and the staff responsible for them, in jeopardy.

The paper which follows is an empirical investigation in which J.M. Genn questioned a wide sample of academic staff from Australian universities about their perceptions regarding the most important factors influencing promotion. His survey clearly indicates that Australian academics believe that promotion depends much more on activities relating to research rather than teaching. This perception undoubtedly influences their allocation of time to different tasks, possibly even in universities, such as the ANU, where applicants for promotion may request the promotions committee to allocate a greater weighting for teaching than for research, if that is where the applicant's efforts have been.

Unfortunately the paper by L.N. Short was not available in time for inclusion in the present publication, but as the abstract shows, the paper describes restrictions on innovation in a relatively open Arts degree due largely to inertia and constant arguments within the Board of the Faculty.

B. Martin takes up the issue of control of academic freedom by describing direct and indirect influences wielded by powerful political and industrial groups outside higher education. These forces, he claims, influence the attitudes of "successful" academics, i.e. those whose worth is acknowledged by the institution, and the "successful" academics are then in a position to suppress academics who do not conform.

The last paper in this section, by J. Martin, examines the influence of institutions on learning from a different perspective, one which is more positive than most other papers in this section. He is more concerned with in-service training programmes whereas the majority of other contributors deal with formal courses in universities and colleges. Nevertheless the arguments presented in this paper could well be applied to all adult learning, namely that the learning programme should take cognisance of the environment and context in which the learning occurs, and that where some choice in activities or content is possible, it should be possible to match learning programmes to students' needs and interests.

Change is disturbing: A rationale for innovation

T. Hore

This paper considers external forces which bring about the conditions where change may occur, it discusses strategies for change and barriers to change.

Attempted innovation in Higher Education in Sweden and in recent Australian government enquiries and commissions will provide the illustrative material.

Finally, questions are raised about the vulnerability of higher education if change is not sought from within that system.

A professor of social policy (Klein, 1979) recently argued that we need to develop a political economy model of academia. He argued that the university world is becoming increasingly like the competitive, individualistic market economy of early capitalism. This competition is between individual academics for promotion and resources, between departments and universities. He agrees that the analogy falls down in that there is no academic equivalent of bankruptcy, so, as Klein puts it "... competition is tempered by the knowledge that even the unfittest will somehow survive (p.307)."

In drawing his caricature he hopes that his academic colleagues will overcome their horror at this scenario and consider future tensions and problems.

Despite the fact that Klein was discussing British universities, the points are apposite for Australian conditions, for, given a stagnant future in terms of resources, institutions will react at different points along the continuum between aggressive marketing at one end to immobile entrenchment in the status quo at the other; Klein uses the phrase "institutional sclerosis" for the latter.

Realistically, most people looking at the corpus of Australian academics would see a body with hardening arteries, a body and a mind not ready to exercise itself on how to adapt to changing conditions. We all know what happens to organisms which do not adapt, so investigations of how change may be brought about are critical at this time. Questions like "What are the preconditions for change?" and "What are the aids and hindrances to change?"

As far as I can see there is little literature on case studies of innovation in higher education, however there is one book called Innovations and innovation processes in higher education (Berg and Ostergren, 1977) which attempts to conceptualize the processes of innovation through case studies of educational change in Sweden. Since Australian universities are likely to be forced, like Sweden, to consider change through factors external to the institutions themselves, such as federal financial manipulation, demographic factors or shifts in public attitudes, this article draws on Berg and

Ostergren and highlights the characteristics of the system of higher education of innovation processes and of possible change strategies so that the disturbance which change, by definition, must cause can be recognised and tolerated.

Because of all systems' desire for equilibrium there is a tendency to protect the system or parts of the system against innovations which force deviation from the existing patterns. Given this protection how then can innovation even occur?

EXTERNAL FORCE

In the Swedish case, the government forced changes in higher education institutions which were successful in some places and unsuccessful in others. Successful because you can order people to adopt something new, but unsuccessful because you cannot order people to create something new. For example, you can order academic staff to clock in and out at 9.00 a.m. and 5.30 p.m., as they did in Holland, but you can't order staff to be more constructive or creative in the hours they spend in the institution.

In order for innovation to occur the system must allow change to take place, change which deviates from the system norms. In the Swedish study innovators were characterised as "oppositional, atypical, marginal men", and the authors suggested that they may belong to a subsystem which is different from the supersystem or from other subsystems in the supersystem. (A better description of teaching/research units and their staff may be hard to find).

Common sense would indicate that to promote innovation there is a need to weaken the restraints and strengthen the support or both. A lot depends on the level of threat or conflict within the system, and tied to this is visibility. High visibility can alert the opposition into mobilizing restraining forces, but obviously innovation cannot take place with no visibility at all so Berg and Ostergren talk about "selective visibility". This occurs by allowing the innovation to be made visible only to certain subsystems, playing down any divergent aspects to subsystems expected to impede.

Three other aspects are worthy of mention. These are OWNERSHIP, LEADERSHIP and POWER.

Direct ownership of the innovation belongs to those who have created the innovation. Indirect ownership related to those people who feel themselves to be representative of a broader change strategy of which this innovation is part. Whether the owners are leaders or not depends upon the POWER that can be mobilized. If there is no power that can be mobilized, there is no possibility that the innovation will be realised. The mere knowledge that power exists in the system may be mobilized rather than the power itself. His is "The Boss has not knocked the idea" or "The Vice-Chancellor is interested in this idea" syndrome.

Acknowledging that few of us have power in our various systems we need to consider this latter strategy in order to harness the power of others.

So how does one attempt to bring about change? Bennis, Benne and Chin (1969) have outlined a series of strategies, some of which will seem obvious to those people who have been working in staff development or institutional research for some time but it does no harm to reconsider them. Bennis et al. suggest the following:

1. Resistance will be less if administrators, teachers, Board members and community leaders feel that the project is their own - not one devised and operated by outsiders.

2. Resistance will be less if the project clearly has wholehearted support from top officials of the system.

3. Resistance will be less if participants see the change as reducing rather than increasing their present burdens.

4. Resistance will be less if the project accords with values and ideals which have long been acknowledged by participants.

5. Resistance will be less if the programme offers the kind of new experience which interests participants.

6. Resistance will be less if participants feel that their autonomy and their security is not threatened.

7. Resistance will be less if participants have joined in diagnostic efforts leading them to agree on what the basic problem is and to feel its importance.

8. Resistance will be less if the project is adopted by consensual group decision.

9. Resistance will be reduced if proponents are able to empathize with opponents; to recognise valid objections; and to take steps to relieve unnecessary fears.

10. Resistance will be reduced if it is recognised that innovations are likely to be misunderstood and misinterpreted, and if provision is made for feedback of perceptions of the project and for further clarification as needed.

11. Resistance will be reduced if participants experience acceptance, support, trust, and confidence in their relations with one another.

12. Resistance will be reduced if the project is kept open to revision and reconsideration, if experience indicates that changes would be desirable.

The trouble as I perceive it is that we (the change agents) make two invalid assumptions

1) That the higher education system has a high innovative potential e.g. that it has within itself strong forces towards innovation.

2) That there are well-founded opinions on how change can be brought about.

We are wrong in both these assumptions.

The sort of advice which can be given to aspiring change agents is as follows:

1. You need a thorough knowledge of the system, and the subsystems to recognise the power structures.

2. Change should be encouraged through data gathering and information dissemination.

3. It may be more advantageous to attempt to reduce restraints rather than harness driving forces.

4. Don't believe that high visibility is necessarily a good thing for an innovation.

5. The implementers of the change should have worked at its design and development.

The factors cited most frequently in explaining why change has not taken place are (1) lack of money, (2) red tape (I prefer "red elastic" since elastic not only binds but also constricts) and (3) the most difficult constraint of all: staff conservatism, inertia and tradition. Halsey (1979) asked whether the cessation of expansion was a greater possible force for future change. In reply he said "I doubt it", because he felt that internal struggles for the re-deployment of resources would "sap the effect", at the 1st Pan-Pacific Conference on Drugs and Alcohol (Canberra, 29 February, 1980).

Senator Baume's paper was concerned with bringing about change in the area of drug use, but we can learn much from his analysis.

Senator Baume's central propositions were:

1. The degree of threat perceived by powerful people or powerful institutions by recommendations of commissions or enquiries will determine how and whether those recommendations are accepted and implemented.

2. There is a maximum tolerable rate of change in society. Even radical change can be accommodated if it is introduced by incremental steps while even modest and moderate programmes will be rejected if large changes are required in single steps as part of their implementation.

He saw three barriers to change which face a public enquiry or royal commission.

* Threats to established interests.
* Amount of change proposed.
* Ideological orthodoxy.

In considering the most successfully implemented recommendations of commissions and enquiries, Senator Baume perceived that they:

1. Are the least threatening
2. Upset the existing power structure the least
3. Endorse the values of the decision makers
4. Endorse the dominant ideologies
5. Are least politically contentious.

Acknowledging Senator Baume's experience in nursing several reports on Social Welfare through the Senate, it would be instructive to look at the government response to the Williams Committee Report bearing the above five points in mind.

CONCLUSION

Higher education is vulnerable if it does not institute change from within, for external forces are present to bring change about without systematic willingness.

Bringing about change in a university is about as easy as shifting a cemetery but there are cracks appearing and the corpses are stirring. Berg and Ostergren (op. cit. p.119) defined "cracks" as conflicts within the system which are the preconditions for innovation.

These cracks can result from declining student numbers, increasing mature age students or the age-grade structure of the academic staff, but whatever it is, change-agents have to use those cracks to plant the seeds of change.

But it is important to realise that the process of considering and implementing an innovation is in many cases as critical as the innovation itself, and therefore any measure of success of an innovation should take into account ehe effects of the process. As Tennessee Williams said in Camino Real (1953):

> There is a time for departure even when there's no certain place to go.

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Can the university teach environmental studies?

J.J.T. Evans

Those who advocate environmental studies in the university or elsewhere entertain varying concepts of the field, which can be ranged along a continuum from what might be called a 'traditional', through a 'systems', to a 'holist' approach. The contemporary university grudgingly supports expressions of the second approach while it actively inhibits those of the third. I suggest that the ideal programme of environmental studies in current circumstances would be one based on a dialectical combination of all three approaches. By contrast, the universities' almost exclusive reliance on the first and second approaches is positively harmful in that it encourages ill-founded complacency.

An analysis of these three approaches in terms of a Kuhnian paradigm shift from the traditional to the holist end of the continuum provides an explanation of how and why the university reacts to expressions of the three concepts in the ways it does. The crucial issues are the structure and operation of the university, its requirement of staff for concrete research output and Bateson's concept of the double bind.

If the university is to foster intellectual innovation which is appropriate and adaptive to the increasingly rapid and turbulent developments in the outside world, it must acknowledge and respond to Kuhn's and Bateson's important insights.

INTRODUCTION

For the past seven and a half years, I have lectured in the Human Sciences Program (H.S.P.) at the Australian National University (A.N.U.). The staff of this Program are one of four groups who offer programs of courses in environmental studies to undergraduates in Australian universities. Five universities, including the A.N.U., offer postgraduate Master's courses or diplomas in the field (4-Fenner, 1977; plus Murdoch University, started subsequently). In addition, quite a few Colleges of Advanced Education (C.A.E.'s) offer undergraduate and postgraduate programs in environmental studies or related, transdisciplinary areas like Park Management and Recreation. My experience of teaching environmental studies during this time leads me to ask whether the university as we know it is capable of carrying out this task in a socially useful fashion. Whether or not the C.A.E.'s can do so is a separate question which I shall not address.

This issue is made complex by the fact that those who advocate environmental studies appear to entertain concepts of the field which range along a continuum from what may be called positivist at one end, through systems to holist at the other end. Environmental studies of the first kind correspond more or less to the familiar academic disciplines of Geology, Geography and Sociology. Use of the term positivist can lead to unnecessary misunderstanding since, as Anthony Giddens (1974, p.xi) has observed:

> 'positivist', like the word 'bourgeois' has become more of a derogatory epithet than a useful concept, and consequently has been largely stripped of whatever agreed meaning it may once have had.

However, if we can agree to accept Comte's original sense of the word

and to disregard its derogatory overtones, it becomes the most appropriate term.

According to Comte,

> the human mind passed from a primary stage of theological interpretation through a stage of metaphysical and abstract interpretation to a mature stage of positive or scientific understanding, based only on observable facts and the relations between them and the laws discoverable from observing them, all other kinds of inquiry into origin, cause or purpose being pre-scientific. (Williams, 1976, p.200)

Advocates of the systems approach aim to educate a new kind of multi-disciplinary specialist with competency in land use planning, ecosystem management and the like. Their ultimate aim is to generate advocacy in the corridors of power for the quality of the human environment. Proponents of the holist approach see the systems approach as pre-occupied with the development of solutions to problems which are no more than symptoms of the current, global problematique. This third approach espouses the view that the problematique constitutes an extremely dangerous situation which is likely to worsen so long as its roots remain unidentified and intact.

I believe that the university can make a socially useful and valuable contribution to meeting the problematique to the extent that it fosters all three of these approaches in concert. Scholarly activity in the first mode is already well supported and can persist alongside new groups of staff with a responsibility for Environmental Studies, based on the second and third approaches. The three approaches can be practised alongside each other in a complementary, dialectical relationship. The very differences between the approaches mean that their interaction is likely to be highly productive in both intellectual and practical terms.

In fact, Australian universities in general give somewhat grudging support to environmental studies of the second kind, restricting them in a majority of cases to the postgraduate level, while they effectively inhibit those of the third kind. From the holist point of view, the university's contribution to meeting the problematique tends as a result to be superficial and short-term. Moreover, to the extent that the academic world helps legitimate the notion that the first two approaches are adequate to society's current needs, it encourages complacency which is positively harmful.

Others have used the expressions, shallow and deep ecology to indicate conventional and radical approaches to environmental issues respectively (Naess, 1973; Devall, 1979). Because I believe that all of the current approaches have a role to play, I prefer to use words which leave their relative values undecided.

PARADIGMS AND EPISTEMOLOGY

It is now increasingly widely recognised, from the systems and holist perspectives at least, that the three approaches which I have

identified correspond to patterns of thought and action which differ from each other at a fundamental level. In other words, the differences between these approaches arise from differences in paradigm or epistemology. It was Thomas Kuhn (1962) who first gave wide currency to this particular use of the word paradigm. He re-interpreted the development of science in terms of a succession of explanatory models or paradigms, each one of which had given way to the next by a process of revolution. Other authors subsequently extended this use of the word to provide an explanation of the development of thought and culture as a single systemic whole. Gregory Bateson (1972, 1979) appears to have been chiefly responsible for borrowing the word epistemology from academic philosophy for use in an expanded sense to encompass the critical re-examination of systems of assumptions underlying not only contemporary philosophy but modern culture at large. In Bateson's words (1972, p.314), 'The living man is bound within a net of epistemological and ontological premises which, regardless of ultimate truth or falsity, become partially self-validating for him'.

It was Lynn White's famous article 'The historical roots of our ecologic crisis' that first drew my own attention to the relevance of Kuhn's thesis to the problematique. The concluding words of this article epitomise its message:

> Since the roots of our trouble are so largely religious, the remedy must also be essentially religious, whether we call it that or not. We must rethink and refeel our nature and destiny. The profoundly religious, but heretical, sense of the primitive Franciscans for the spiritual autonomy of all parts of nature may point a direction. I propose Francis as a patron saint for ecologists.

It is important to realize that White is an authority on the 'Dark' and 'Middle' Ages in Europe and is therefore inclined to look upon contemporary civilization against a background of its Christian heritage. From a more current perspective, the meaning he intended by 'religious' might have been better rendered by the expressions world-view or Weltanschauung.

The intuition that only radical change will resolve our problems is increasingly heard on all sides. On the one hand from the vantage point of physics, the central legitimating discipline of the dominant mode of thought in Western society, Fritjof Capra (1975) claims that Relativity and Quantum mechanics together mark a radical change in paradigm which has implications for the rest of science and for society as a whole. He maintains (p.324) that:

> most of today's physicists do not seem to realise the philosophical, cultural and spiritual implications of their theories. Many of them actively support a society which is still based on the mechanistic, fragmented world view, without seeing that science points beyond such a view, towards a oneness of the universe which includes not only our natural environment but also our fellow human beings. I believe that the world view

> implied by modern physics is inconsistent with our present society, which does not reflect the harmonious interrelatedness we observe in nature. To achieve such a state of dynamic balance, a radically different social and economic structure will be needed: a cultural revolution in the true sense of the word. The survival of our whole civilization may depend on whether we can bring about such a change. It will depend, ultimately, on our ability to adopt some of the yin attitudes of Eastern mysticism; to experience the wholeness of nature and the art of living within it.

On the other hand, Dennis Altman concludes from a recent study of the all too present realities of Australian politics (1980, p.191) that:

> the social democratic vision - of which Gough Whitlam and Don Dunstan have been the most important representatives in Australia - is no longer adequate; - in the end it cannot meet the crisis of capitalism and ecology that faces all Western countries, and, in somewhat different ways, the whole global system. To deal with this requires a revitalization of the anarchist libertarian tradition, which has been reintroduced to politics through the women's, the gay and the ecological movements.

James Ogilvy (1977, p.3) makes a similar point to Altman's with epigrammatic clarity:

> A gradual but fundamental shift has brought us to a point where the traditional solutions have now become the problem: politics and technology have replaced nature in the role of alien environment. The new problem: How to carve out livable spaces within the political-technological wasteland?

PARADIGM SHIFT

Let me hasten to admit at this point that the explanation of phenomena in terms of deep structures is prone to error for the simple reason that the postulated structures are necessarily observed at one remove. Yet, from Freud and Marx, through Chomsky, Piaget, Levi-Strauss, Kuhn and Bateson to Anthony Wilden's (1972) and Ernest Becker's (1976, 1975, 1976) brilliant works of synthesis, the development of this kind of explanation has undoubtedly been one of the most productive streams of thought in the present century.

For the remainder of the present paper, I shall use some of the insights of Kuhn and Bateson in an attempt to develop greater understanding of the current circumstances of environmental studies in the Australian university system. This particular activity serves as a case study which exemplifies developments that appear to be taking place at the present time on a broad front through academia and society. To begin with, let me propose the following hypotheses:

(1) The dominant influence of the positivist approach in relation

to environmental studies reflects the dominant influence of this approach in the university as a whole.

(2) The positivist approach arises from a corresponding, positivist paradigm.

(3) The progressive emergence of the systems and holist approaches during recent years reflects the early signs of a shift away from the positivist paradigm towards a new, holist one.

(4) People who espouse the systems approach have undergone more or less a shift from the positivist to the holist position but identify primarily with the fundamental features of one or the other of these two.

(5) The beginnings of this paradigm shift underly not only the call for environmental studies in the university but also a wide variety of other similar changes occurring on a wide front throughout scholarship and society.

On the basis of this last hypothesis, I have made a preliminary tabulation of the major features of the three approaches as they are reflected on a broad social and intellectual canvas (Table 1). The items listed in the first and third columns of the table, respectively, give the strong impression of constituting systemic wholes while those in the second column encompass both sides of the following important issues:

(a) the relative importance in political systems, understood broadly, of centralized authority versus individual participation,

(b) the relative significance of individual experience,

(c) the relative importance of ends versus means.

It is this difference between the columns that leads to the suggestion that there are positivist and holist paradigms while the systems approach encompasses a series of intermediate positions between these. On this foundation, let me offer some other hypotheses:

(6) The holist paradigm is still in a pre-paradigmatic period of confusion.

(7) Any given academic who identifies with a particular column in Table 1 will tend to see positions to his/her left as limiting cases of a larger picture, while seeing positions to the right as more or less absurd or dangerous.

(8) Many of those who have undergone a degree of paradigm shift interpret the current problematique as the inevitable, if tragic outcome of the positivist approach, to which a paradigm shift of some kind is the only response likely to lead to adaptive outcomes.

(9) By contrast, those who espouse the positivist paradigm, and who therefore support the social structures and rules based upon it, feel compelled to obstruct the process of paradigm shift and its consequences.

(10) In these circumstances, many advocates of environmental studies find themselves in circumstances which closely resemble the double bind, postulated originally by Bateson (1972) as an explanation for the genesis of schizophrenia.

Suzanne Langer, writing during the Second World War (1942), reports her observations of an even earlier phase in the emergence of a new paradigm, when the outlines of this process were even less clear than they are today. She writes:

> The springs of European thought have run dry - those deep springs of imagination that furnish the basic concepts for a whole intellectual order, the first discernments, the generative ideas of our Weltanschauung. New conceptual forms are crowding them out, but are themselves in the mythical phase, the "implicit" stage of symbolic formulation.

A corollary of the hypothesis that the holist paradigm is still 'pre-paradigmatic' is the likelihood that it will in time follow the example of the positivist paradigm in generating a multitude of research specialisms of its own. It is likely that Western industrial society will develop structures in decades to come that mirror the holist paradigm, though I do not mean to attribute any causal agency to the intellectual transformation by saying this. We may also anticipate that the holist paradigm will come after a period of time to be challenged in its turn by yet another emerging paradigm, despite the fact that the possible form of the latter is presently beyond the reach of our most vivid imaginings.

PARADIGM SHIFT AND ACADEMIA

Some of the foregoing hypotheses could be further investigated and tested by structured interviews of appropriate samples of university staff and students or other groups. Until this is attempted however, the best available evidence in support of them comes from observation and the personal experience of environmentalists who have worked in various academic institutions (Martin, 1980). I believe that some of the patterns which emerge from these cases find a cogent explanation in the foregoing hypotheses. As Val and Richard Routley (1980) have wryly observed, 'participation in attempts at social change often has the effect of revealing to participants the structure of the society in which they live'.

The idea that there is a system of assumptions and concepts which can be called the positivist paradigm and the idea that this system exerts a dominant influence on the contemporary university (hypotheses 1 and 2) will, I suspect, appear self-evident to a large number of those who have thought about these things. It should therefore be sufficient to give the briefest outline of the ways in which the paradigm is reflected in the contemporary university's structure and operation. Let me do this by offering a series of summary statements:

(a) Most of the universities in Australia are organised primarily into departments which correspond to the various academic specialisms. The departments are usually grouped into faculties or schools on the basis of traditional categorizations like

science, arts and certain leading professions. The only two universities which have departed to any significant degree from this pattern, Griffith and Murdoch, are the two universities whose future appears to be most uncertain at the present time.

(b) The different specialisms are elaborately organised between the universities and other research establishments, both within Australia and internationally, through associations, conferences, journals, honours etc. In effect, each specialism constitutes a sub-culture or tribe with its own belief system, traditions, rules, great people, stock jokes, etc.

(c) The primary function of each specialism is to generate published research results which have exchange value within the specialism's sub-culture, although the overwhelming majority of them may have little use value in society at large (Wilden, 1972, p.xxiii). University staff are rewarded with tenure and promotion by the department and with various perquisites and prestige by the specialist sub-culture, largely according to the quantity and perceived value of their research output.

(d) The ideal forms of theory and research method are those of conventional chemistry and physics. The relative prestige of a department with the university (and the size of its budget) depends to a significant extent on how closely the specialism of that department approaches these ideals. It is of course the identity of these ideals and their hold on the university that is most indicative of the dominant influence of the positive paradigm.

(e) The universities, like the specialist sub-cultures, are strongly hierarchic and a relatively small group of senior staff dominate all of the important decisions within them .As stated above, the senior staff achieve these position of influence largely through their commitment to and success in specialist research.

(f) The educational programs of those departments with the highest status in particular is designed primarily to serve specialist research by preparing brighter students for membership of the corresponding specialist sub-cultures. The educational process is therefore primarily concerned with problems and issues which have arisen within the theoretical framework of the various specialisms. In addition, the kinds of problems most studied are ones which exhibit both a high potential for solution and maximum theoretical significance for the given specialism.

Programs of environmental studies differ in a number of signficant respects from conventional academic activities and these differences arise, according to my thesis, from varying degrees of shift towards a new, holist paradigm. The pivotal difference relates to the fact that the pressure for environmental studies has come from a conviction that academia should take a more active interest than it has heretofore in the mounting environmental and social problems that constitute the global problematique. Hence environmental education tends to be 'problem-centered' and therefore more or less transdisciplinary, or transpecialist in character; the range of relevant specialisms runs

CATEGORIES	POSITIVIST PARADIGM
Leading mode of thought	specialist, reductionist (explanation in terms of parts) deterministic
Nature of reality/consciousness	
central concepts:	substance, primary qualities (Galileo)
criteria of truth:	scientific objectivity
philosophical perspectives:	Analytical philosophy, Naive realism
Leading metaphor	clock or machine; hence emphasis on analysis into parts; e.g.: space/time, body/mind/(spirit) structure/function, subject/object subjectivity/objectivity cognition/intellect/motivation/(emotion) human species/environment, knowledge/ethics/aesthetics language: words (Analytical philosophy) organism: organs, cells or molecules genotype: genes behaviour: stimulus, response ego, id, superego (Psychoanalysis) society: classes (Marxism)
Predominant interrelationships between parts	competition, authority; e.g.: evolution (biological) by natural selection & competition education: didactic instruction society: Social Darwinism free market, mass production and consumption repression (Psychoanalysis) oppression, revolution (Marxism) individualism and self-interest organisations: hierarchy extrinsic regulation
Techniques and rituals	specialist or disciplinary research professionalism centralisation institutionalisation professional therapy
Research traditions	Physics, Chemistry, Biology (including Ecology)
Means and ends	Means & techniques primary; ends & values implicit or absolute scientific medicine engineering

SYSTEMS APPROACH	HOLIST PARADIGM
specialist & generalist	relational (Bateson), pre-specialist
process, relationships synthesis of perspectives, decision-making General systems theory (von Bertalanffy), Systems philosophy (Laszlo)	awareness, being, secondary qualities (Galileo) synthesis of levels of consciousness Organic philosophy (Whitehead)
system; hence emphasis on systems properties, e.g.: interconnectedness energy flow information flow hierarchy regulation entropy	holography; hence emphasis on: space-time unitary character of cosmos enfolded order levels of awareness, information, energy body-mind-spirit altered states of consciousness, peak experiences organism-environment field (Perls) intention ch'i (Bushido), orgone energy (Reich), prana (yoga) knowledge-ethics-aesthetics collective unconscious (Jung)
co-operation, mutuality; e.g.: evolution in populations by natural selection education: self-development self-directed learning community development regulated market therapy (Psychoanalysis) reform (neo-Marxism) organisations: co-operation & participation intrinsic regulation	community; e.g.: evolution by internal direction and natural selection spiritual development (individual, cosmos?) mutual individuality (Buber)
mission-oriented or problem-centred research family therapy Encounter Reevaluation counseling (Jackins) Search conference (Emery) 'Science for the People' domiciliary care self-help organisations	holist research and learning Psychodrama Gestalt psychology (Perls) meditation focusing (Gendlin) Bioenergetics (Lowen)
Cybernetics, Humanistic psychology (part) Structualism, Political economy, Human ecology	Transpersonal psychology Humanistic psychology (part) Phenomenology
	ends and values personal experience: source of values alternative medical systems appropriate technology (Schumacher) convivial technology (Illich)

right across the major organisational sub-divisions or faculties of the traditional university. Unless a new program of environmental studies is given departmental or faculty status from the beginning, these characteristics can lead to administrative arrangements of daunting complexity. It was the fate of the H.S.P. not to have such status and this lay at the root of the various other troubles which it has experienced over the years.

The concern of environmental studies with social and environmental problems sets it at odds from the beginning with the preoccupation of the specialist research traditions with problems that have a high potential for solution and are of theoretical significance. The problems thrown up by society tend by contrast to be more or less intractable and of little theoretical significance. Furthermore, the environmentalist is frequently more concerned with his/her educational role than with research. To perform this role, the environmentalist is likely to experience a growing awareness that he/she needs to supplement his/her own specialist education with a grounding both in other specialisms and in social realities. A growing transdisciplinary understanding combined with immersion in ecological and social problems leads inevitably, in my experience, to an ever deeper questioning of fundamental intellectual and social assumptions. Thoughts about paradigms and epistemology arise in an attempt to find patterns at this level.

Marilyn Ferguson (1980) has just completed a study of a large sample of Americans from many walks of life who have undergone a deepening awareness of the need for change along these lines. She found that the lives of these people:

> had become revolutions. Once a personal change began in earnest, they found themselves rethinking everything, examining old assumptions, looking anew at their goals and values, work and relationships, health and political power.

These various aims, values and pre-occupations all differ radically from those of the conventional academic. To summarize, unusually heavy administrative duties, the nature of the problems studied, the central importance of education and the exceptional need to acquire new information and understanding all mitigate against the production of research results, let alone ones which meet with approval from senior representatives of the specialist sub-cultures.

When my own position in the H.S.P. came up for tenure review, one at least of the three committees involved disregarded three out of my four referees despite these peoples' considerable scholarly distinction. They interviewed the fourth, who alone of the four had once been a professor, and submitted my written work for review to three professors of philosophy of their own choice. Only one of the latter had any sympathy for my aims and values and he alone of the three offered any praise.

Roberto Unger (1975) has developed a detailed analysis, which I cannot reproduce here, of the ways in which the social pressures favouring specialization act to inhibit exploration of the fatal flaws which underly what he calls the liberal tradition, but which corresponds

essentially to what I have called the positivist paradigm.

It remains only to mention the deep dilemma posed by my final hypothesis concerning the double bind. Bateson et al in Bateson (1972) identify situations in which the body language of a signficant family member, such as a parent, conflicts with their words. When another, dependent family member, such as a child, is unaware of this contradiction and unable to escape from the interaction, one of the best strategies available to the child is to 'go mad'. The parent's body language can be compared to the positivist paradigm, while his/her words can be compared to the explicit commission to teach environmental studies. To the extent that the person charged with this commission undergoes a paradigm shift, he/she finds himself in a situation which is strikingly similar to the child's double bind. In other words, the institution's assumptions seriously obstruct the task but it is impossible to engage in effective communication aimed towards resolving this dilemma. This difficulty arises from the fact that most of those in power in the institution are more or less strongly identified with the positivist paradigm and consequently view the systems and holist approaches as more or less absurd or dangerous (hypothesis 7).

It is in the very nature of the argument which I have presented that it will be acceptable to some but not to others. Even for those of you in the latter group however, I hope that I have managed to draw your attention to some of the subtle difficulties involved in the provision of environmental studies and other related activities. I believe that if the university is to live up to its rhetorical claim to foster free inquiry, by encouraging intellectual innovation which is appropriate and adaptive to the increasingly rapid and turbulent developments in society, it must begin to take a serious look at the insights of Kuhn and Bateson and at their challenging implications.

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Australian university teachers' perceptions of the ideal and actual reward structure in the academic profession

J.M. Genn

The paper presents a discussion and some empirical research findings that pertain to the reward structure in the academic profession and to wider and pervasive issues of freedom and control in the profession. In the empirical study a sample of 796 Australian university academics twice rated the importance of 13 criteria that could be used to judge the quality of an academic's work. The first set of ratings was with respect to what the academics thought should be the case, ideally; the second set was with respect to what they believed to be the actual state of affairs. A comparison of the two sets of ratings was made and revealed a considerable discrepancy between the reward structure as the academics would like it to be and the reward structure as they see it actually to be.

AIMS OF THE STUDY

This paper aims to contribute to a discussion of the Conference theme of Freedom and Control in Higher Education by the presentation and discussion of some findings that pertain to freedom and control in the Australian university academic profession. The paper is concerned with the nature of the reward structure in the profession, both the structure as it is and as it might be. The actual reward structure is viewed as an actual control system or extrinsic motivation operating to possibly control and determine the attitudes and behaviours of university academics. The ideal reward structure, as determined by the academics themselves, is the system that would represent freedom and intrinsic motivation for them, and is also viewed here as a possible determinant of the attitudes and behaviours of the academics.

The explicit aim of the study is to compare university teachers' perceptions of the reward structure they ideally would like and the reward structure they say exists, but there are two implicit and major aims subsumed in this study of the reward structure and freedom and control in the academic profession. One is to consider possible tensions academics might experience, as employees, trying to get on and get ahead in their profession, if control clashes with freedom, that is if behaviours that are seen to be most or least rewarded do not coincide with behaviours that the profession generally, or its individual members, believe should be most or least rewarded. The other aim is to look especially at the teaching function in the academic profession, to find out how important it is, or should be, in relation to other calls on the academics' time and energy, and, by implication, to find out how free academics see themselves as being to attend to the teaching function,

when they are possibly under the control of very powerful counter-attractions or counter-motivations to the pursuit of excellence in teaching.

METHODOLOGY

1. Sampling

The data for the study were provided by a sample of 796 university teachers, representative of all ranks from professor to tutor and drawn from ten departments (English, French, History, Mathematics, Chemistry, Zoology, Economics, Civil Engineering, Law and Medicine), across six Australian universities, which together were representative of large and small universities, metropolitan and provincial, old and new, conservative and innovative. Full discussion of the sampling is available in the report of a larger study from which data used in this present study were taken (Genn: 1980a).

2. Instrumentation

Thirteen items, as set out below, constituted a domain of criteria that might be used to judge the quality of an academic's work, when decisions about promotions and salary increments were to be made. Academics were asked to indicate, on a 5-point scale, first, their view of how important each criterion should be (Items 1-13). Their responses to this questioning constituted a domain of perceptions of the ideal academic reward structure, this domain hereafter being referred to as Ideal Criteria of Academic Worth. The academics were then asked to indicate, on the same 5-point scale, their view of how important each criterion in fact is, in the actual academic world (Items 14-26). Their responses to this second mode of questioning constituted a domain of perceptions of the actual academic reward structure, this domain hereafter being referred to as Actual Criteria of Academic Worth. The source of the 13 items was a questionnaire prepared by Gross and Grambsch (1968). In the 5-point scale used, 5 = of extremely high importance; 4 = of high importance; 3 = of medium importance; 2 = of low importance and 1 = of no importance.

Item 1-14	Teaching performance
Item 2-15	Publications
Item 3-16	Honours received
Item 4-17	Student evaluations
Item 5-18	Other job offers received
Item 6-19	Service to the community
Item 7-20	Total effectiveness in working with students
Item 8-21	Ability to secure research grants
Item 9-22	Statements of other staff members
Item 10-23	Ability to get along with colleagues
Item 11-24	Research accomplished
Item 12-25	Research potential
Item 13-26	Committee and other administrative service.

3. Statistical Analysis

Use of multivariate analysis of variance and discriminant analysis enabled a holistic comparison to be made of the two patterns of responses to the 13 items, viz the patterns of responses on the domains being called, respectively, Ideal Criteria of Academic Worth and Actual Criteria of Academic Worth. Discriminant analysis procedures also reveal which of the 13 items most contribute to the separation of the Ideal and the Actual Criteria of Academic Worth. Supplementing the multivariate procedures were simpler ones, in which comparisons are made, item by item, of the responses made by the whole sample, when the importance of an item criterion was assessed, first "ideally" and then "actually". For each of two key criterion items, viz. Teaching Performance, and Research Accomplished, respectively, responses to the item as an Ideal and as an Actual criterion were also provided for each of the departmental groups and each of the six status groups comprising the sample.

FINDINGS AND DISCUSSION

1. Findings

The findings pertain principally to the nature and extent of the discrepancy between the sets of perceptions of the Ideal and of the Actual Criteria of Academic Worth, respectively, and also to the differential rating of particular criteria in each set.

The perceptions of the ideal and of the actual reward structure in th academic profession differed in a statistically significant manner ($p < .0001$), which was defined by a dimension or discriminant function arising from a discriminant analysis, in which the academics' perceptions of the ideal importance of the 13 items pertaining to criteria of academic worth were compared to their perceptions of the actual importance of the same 13 criteria items. When it comes to contrasting the ideal and the actual, they are found to differ in such a way that the actual academic world, relative to the ideal, is seen by the academics to "Emphasise research, publications, scholarly reputation and administrative work, and to de-emphasise effectiveness of service to students and the community".

Table 1 is a direct and simple way of presenting ideal-actual differences. It presents the means and standard deviations for responses of the whole sample to each item, first as an ideal criterion, then as an actual criterion, and indicates the extent to which each ideal-actual comparison is statistically significant.

The following aspects are worth noting:

(i) Most noteworthy is the fact that for all items except Item 10-23 (Ability to Get Along With Colleagues), there is a statistically significant ideal-actual difference, with significance levels of $P < .0001$ for all the significant differences except that for Item 12-25 (Research Potential), where $P = .035$.

(ii) Summarising the item-by-item comparisons of ideal-actual, for the whole sample, the situation is that:

Ideal rating is greater than Actual rating for:

Teaching Performance
Student Evaluations
Service to the Community
Total Effectiveness in Working With Students
Research Potential

and

Actual rating is greater than Ideal rating for:

Publications
Honours Received
Other Job Offers Received
Ability to Secure Research Grants
Statements of Other Staff Members
Research Accomplished
Committee and Other Administrative Service

(iii) Table 1 shows the items as asterisked which most contribute to the separation or discrimination of the two overall patterns of responses, i.e. the patterns of Ideal Criteria and of Actual Criteria of Academic Worth. These items are:

Teaching Performance
Honours Received
Student Evaluations
Service to the Community
Total Effectiveness in Working With Students
Ability to Secure Research Grants

(iv) The four highest scored or most favoured items, as Ideal Criteria, are, in descending order:

Teaching Performance
Total Effectiveness in Working With Students
Research Accomplished
Research Potential

while the four lowest scored, or least favoured items, as Ideal Criteria are, in the order of decreasing favour:

Statements of Other Staff Members
Honours Received
Ability to Secure Research Grants
Other Job Offers Received

(v) The four highest scored items as Actual Criteria, are, in descending order:

Publications
Research Accomplished

Honours Received
Ability to Secure Research Grants

while the four lowest scored items, as Actual Criteria, are, in order of decreasing score:

Teaching Performance
Total Effectiveness in Working With Students
Service to the Community
Student Evaluations

(vi) There is some interest in the standard deviations (variability) of responses to particular items, whether as Ideal or as Actual Criteria. Concerning the perceptions of the Ideal Criteria, the items showing the least variability, and therefore greatest consensus of academic opinion, are, in order:

Teaching Performance
Total Effectiveness in Working With Students
Research Accomplished

Concerning the perceptions of the Actual Criteria, the items showing the least variability, and therefore greatest consensus of academic opinion, are, in order:

Publications
Research Accomplished
Student Evaluations
Teaching Performance

Table 1, as has been seen, presents the item by item, Ideal-Actual comparisons for the sample of academics as a whole. While the major interest of this paper is in responses of the whole sample, it might reasonably be asked whether, if the sample was differentiated according to, say, department or status, the nature of the Ideal-Actual differences would be the same for the various departmental or status groups as it is for the sample as a whole. Rigorous analyses pertaining to this question were not made, but some findings supplied in Tables 2 and 3 indicate an affirmative answer to the question, for two key criteria items, viz Item 1-14 (Teaching Performance) and Item 11-24 (Research Accomplished). The Ideal-Actual difference on each of these items, for each of the ten departmental groups (Table 2) and each of the six status groups (Table 3) comprising the sample, is in the same direction as the direction of the comparison, on each item, for the whole sample, but the extent of Ideal-Actual difference on a particular item is not always constant, department to department or status group to status group.

The inter-departmental differences shown in Table 2, on Item 1-14 (Teaching Performance, as an Ideal and as an Actual criterion) and Item 11-24 (Research Accomplished), as an Ideal and as an Actual criterion) are of course interesting in their own right, as too are the corresponding inter-status group differences shown in Table 3. These interdepartmental and inter-status group differences are fully discussed elsewhere (Genn; 1980b), and are noted here mainly as an aspect of the

consideration of how much consensus of answering characterises departments and status groups, when they report their perceptions of the Ideal and Actual reward structure, as it concerns, in particular, the criteria of Teaching Performance and Research Accomplished. Table 2 shows that there are statistically significant differences among departments on Item 1 (Teaching Performance, as an Ideal criterion) and on Item 11 (Research Accomplished, as an Ideal criterion), but that there are no significant departmental differences on either Teaching Performance (Item 14) or Research Accomplished (Item 24), as Actual criteria. Table 3 shows that there are statistically significant differences among status groups on Item 1 and on Item 14 (Teaching Performance, as first an Ideal then as an Actual criterion) and on Item 11 (Research Accomplished, as an Ideal criterion) but that there are no statistically significant status group differences on Item 24 (Research Accomplished, as an Actual Criterion).

As has been noted, special interest in this paper attaches to the place of "teaching" and some of its possible "competitors" in the ideal and actual academic worlds. Tables 1, 2 and 3 supply information relevant to this interest, as does Table 4, which focuses on "research" as a "teaching competitor" and involves "research versus teaching" comparisons for the sample of academics as a whole.

Some striking findings are provided in Table 4, and are worth underlining here:

(i) While 92.5% of academics rate Teaching Performance as being ideally of high or extremely high importance, only 12% thought it was rated of such importance in the actual academic world.

(ii) While 68.9% of academics rate Research Accomplished as being ideally of high or extremely high importance, 90% thought it was rated of such importance in the actual academic world.

(iii) While 92.5% of academics rate Teaching Performance as being ideally of high or extremely high importance, only 68.9% rate Research Accomplished as being of such importance, ideally.

(iv) While only 12% of academics rate Teaching Performance as being of high or extremely high importance in the actual academic world, 90% thought Research Accomplished was rated of such importance in the actual academic world.

2. Discussion

Tables 1-4 reveal a considerable discrepancy between the Ideal and Actual Criteria of Academic Worth, both overall and item by item, as perceived by the academics in this study. The Tables also reveal that, within the domain of the academics' perceptions of the Ideal Criteria, the various criteria have very different ratings, and the same applies within the domain of the academics' perceptions of the Actual Criteria. These facts, viz Ideal-Actual difference or discrepancy, and differential ratings of criteria within each of the Ideal and Actual domains, add up to a situation which appears to have substantial implications for the welfare and efficiency of the

academics, and more particularly and importantly, the welfare and development of their students, for whom the university institution exists.

In the face of the evidence that academics, in general, say they have, that Teaching Performance rates pretty low as a criterion of academic worth in the real academic world, compared to such matters as Research Accomplished and even Committee and Other Administrative Service, it would, perhaps, be strange if an academic who wished to "get on", "get ahead" and be promoted and judged successful, did not seek to match his or her behaviours to the actual reward system, as he or she saw it, and to consequently de-emphasise the teaching role in relation to other more rewarded activities. Evidence from virtually all learning theory is to the effect that rewarded behaviours tend to be fostered and increase in frequency and extent, while unrewarded or less rewarded behaviours have a strong tendency to diminish in frequency and extent and often to disappear.

Any reduction in attention to the teaching role, (and it would be hard to believe that the perceived actual reward structure with its relative lack of reward for teaching did not at least make such reduction in attention likely), has vast significance for the academic and even more for his or her students.

For the students, any reduction in the academic's attention to the teaching role would seem to almost certainly mean a reduction in the quality of teaching the students receive, and thus a reduction in the quality of the experience their university education provides. (There would however be another side to this discussion, which would say that an academic cannot be a good teacher if not actively engaged in some of those roles which a simple-minded view would see as teaching's rivals, particularly research activities, but perhaps also administration activities).

If Teaching Performance does not rate well as a criterion of worth in the actual academic world as perceived by academics, Student Evaluations is seen as rating substantially lower. This is not the place to debate the matter of whether or not Student Evaluations should be used to measure teaching success, let alone the question of whether they should be used to make decisions about the promotions of academics. But the low ratings of both of these criteria, viz Teaching Performance and Students Evaluations, in the actual academic world as perceived by academics, could be interpreted, from the student viewpoint, as an indication that the actual reward structure the academics perceive is not consistent with the enhancement of the quality of teaching and that the reward structure does not take very seriously any claims that might be made, by or for students, that they are able to contribute to judgments about the quality of their teachers.

Turning to the academics, and the possible implications of the findings of this study for their welfare and efficiency, the first point to note is that the discrepancy between the Ideal and Actual Criteria of Academic Worth, both overall and item by item, as perceived by the academics, indicates that the ideal and real worlds of academia are far apart or the academics. This discrepancy is a source of dissonance

and maybe of tension in the profession generally, or the lives of its individual members. Aspects of the academic role that the academics ideally would want to see rewarded are undervalued, as they see it, in the actual world, and some aspects are given more prominence in the actual world than the academics would want. To cope with any tension, the academics could hypothetically forget the Ideal Criteria and merely adjust their behaviour to be consistent with the Actual Criteria and the priorities within it. But generally this is not possible, apart from whether it would be morally proper, and there is some evidence, in a related study (Genn; 1980c), that to a considerable extent, in fact, the academics' perceptions of the Ideal Criteria and that behaviour appears to be somewhat at variance with the perceptions of the Actual Criteria. It could be said, perhaps, that, for each academic, there is a battle between the perceptions of the Ideal and of the Actual Criteria, or a battle between his or her intrinsic and extrinsic motivations to perform the various academic roles, and that in the battle there is some real possibility of tension arising.

The Ideal-Actual discrepancy is not the only source of possible tension, for academics. The academic profession includes at least the thirteen behaviours or roles reflected in the criteria that have been involved in this study. For most academics most of the criteria would be of some importance, ideally, and so there would almost certainly be some incipient role conflict, for them, in setting out their Ideal role priorities. Then there is also a given list, as it were, of role priorities, as contained in the academic's perceptions of the relative ratings of the Actual Criteria, but the right of most if not all the roles to at least be on the Actual list would generally not be in question, either. There would be difficulty enough to cope with the conflict involved, if the academic selected and pursued roles only in terms of his or her Ideal priorities or only in terms of what might be called his or her perceptions of the Actual priorities. But to have to take note of two lists simultaneously, when many of the major roles achieve such discrepant ratings, between and within the two lists, and when at least many roles on each list are of some importance, in their own right, sounds like an exceedingly complex, overarching role and task, and one difficult to enact and achieve with equanimity.

TABLE 1

Means and Standard Deviations (S.D.) for the Whole Sample (N=796) for the 13 Items Relating to Criteria of Academic Worth: Comparison of Ratings of the "Ideal" and of the "Actual", with Statistical Significance Levels for Differences Between the Means, Item by Item

	ITEM	MEAN IDEAL RATING (5-point scale) (S.D. in brackets)	MEAN ACTUAL RATING (5-point scale) (S.D. in brackets)	SIGNIFICANCE LEVEL, FOR DIFFERENCE BETWEEN MEANS
1-14	Teaching Performance *	4.45 (.65)	2.47 (.96)	P < .0001
2-15	Publications*	3.53 (.91)	4.53 (.73)	P < .0001
3-16	Honours Received*	2.65 (1.05)	3.96 (1.01)	P < .0001
4-17	Student Evaluations*	3.12 (.98)	1.72 (.85)	P < .0001
5-18	Other Job Offers Received	2.09 (1.00)	2.94 (1.18)	P < .0001
6-19	Service to the Community*	2.71 (1.09)	2.15 (1.01)	P < .0001
7-20	Total Effectiveness in Working With Students*	4.30 (.79)	2.39 (.97)	P < .0001
8-21	Ability to Secure Research Grants*	2.38 (1.00)	3.61 (1.05)	P < .0001
9-22	Statements of Other Staff Members	2.68 (.95)	3.32 (1.11)	P < .0001
10-23	Ability to Get Along With Colleagues	3.03 (1.01)	3.03 (1.09)	Non-Significant
11-24	Research Accomplished	3.88 (.83)	4.42 (.77)	P < .0001
12-25	Research Potential	3.67 (.90)	3.57 (1.07)	P = .035
13-26	Committee and Other Administrative Service	2.88 (.90)	3.35 (1.06)	P < .0001

TABLE 2

Departmental Responses to Teaching Performance as an Ideal Criterion (Item 1) and an Actual Criterion (Item 14), and to Research Accomplished as an Ideal Criterion (Item 11) and an Actual Criterion (Item 24)

DEPARTMENT	Teaching Performance:		Research Accomplished:	
	Mean IDEAL rating (Item 1)	Mean ACTUAL rating (Item 14)	Mean IDEAL rating (Item 11)	Mean ACTUAL rating (Item 24)
English	4.64	2.65	3.69	4.29
French	4.60	2.79	3.74	4.60
History	4.52	2.58	4.07	4.40
Mathematics	4.31	2.37	3.99	4.37
Chemistry	4.31	2.35	3.98	4.47
Zoology	4.33	2.54	4.03	4.38
Economics	4.57	2.32	3.86	4.47
Civil Engineering	4.40	2.48	3.82	4.37
Law	4.47	2.41	3.89	4.45
Medicine	4.43	2.48	3.66	4.33
Statistical Significance of Inter-Departmental Differences	P = .0016	Non-significant	P = .0117	Non-significant

TABLE 3

Status Group Responses to Teaching Performance as an Ideal Criterion (Item 1) and an Actual Criterion (Item 14), and to Research Accomplished as an Ideal Criterion (Item 11) and an Actual Criterion (Item 24)

STATUS GROUP	Teaching Performance:		Research Accomplished:	
	Mean IDEAL rating (Item 1)	Mean ACTUAL rating (Item 14)	Mean IDEAL rating (Item 11)	Mean ACTUAL rating (Item 24)
Professors	4.28	3.00	4.35	4.37
Readers	4.29	2.53	4.16	4.49
Senior Lecturers	4.41	2.43	4.00	4.46
Lecturers	4.48	2.49	3.75	4.36
Senior Tutors	4.46	2.31	3.77	4.38
Tutors	4.62	2.25	3.60	4.40
Statistical Significance of Inter-Status Group Differences	$P = .0012$	$P < .0001$	$P < .0001$	Non-significant

TABLE 4

How Important Are "Teaching" and "Research", Ideally and Actually?

(N = 796)

ITEM	PERCENTAGE RESPONDING				
	OF EXTREMELY HIGH IMPORTANCE	OF HIGH IMPORTANCE	OF MEDIUM IMPORTANCE	OF LOW IMPORTANCE	OF NO IMPORTANCE
Item 1: Teaching Performance (Ideal criterion of academic worth)	52.6	39.9	7.1	.3	.1
Item 11: Research Accomplished (Ideal criterion of academic worth)	23.7	45.2	26.8	3.9	.4
Item 14: Teaching Performance (Actual criterion of academic worth)	3.6	8.4	33.6	40.3	14.1
Item 24: Research Accomplished (Actual criterion of academic worth)	54.7	35.3	7.4	1.9	.6

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The rise and repose of an academic issue — A faculty at work

L.N. Short

In this paper Professor Short gives a detailed description of the lengthy and inconclusive deliberations of the Board of the Faculty of Arts as it examined the structure of the Arts degree. Over a period of three years, 1970-1973, the Board was unable to reach agreement on many issues, and there were conflicting opinions about the purpose of Pass and Honours degrees in Arts.

It is suggested that the Faculty Board, because of its size and diversity, was ill fitted to make a critical and rational analysis of the educational issues involved; and, lacking control over Departmental curricula and teaching, was unable to introduce order and coherence into the degree structure.

In a historical review of the development of Arts degrees in different countries, Professor Short is able to trace the transition from an early fixed curriculum to the flexible elective system which is now common. He believes that there is now a 'significant need for an analysis in educational terms of the curriculum for general degrees of the University', and that in spite of administrative inertia, which he so tellingly documents, it should be done.

It may be added that many academics can see what is wrong with current degree requirements, but they cannot in practice do anything about them. And the reason that they cannot may be that there is no organisation within which they can put their ideas into effect.

Sources of political power in academia

B. Martin

It is argued that the political power exercised by academic elites can be usefully understood as being based on service to non-academic elites and on disciplinary exclusiveness maintained via specialisation and isolation of work from the public. This perspective on the power structure of academia can help to explain evidence such as the suppression of academics pursuing environmental research and teaching.

In the 1940s and 1950s there were wide-scale sackings and harassment of academics, especially in the US, during the so-called McCarthy era[1]. In Australia, many academics suffered in the aftermath of the Petrov affair[2]. This era had a strong quietening effect on potentially dissident academics. Yet, contrary to belief in some quarters, political beliefs continue to play a significant role in appointments, promotions and sackings[3]. As well as political beliefs, suppression of academics is often closely connected with struggles with organisational vested interests, and with disputes over the validity of different types of knowledge and ways of acquiring it - that is, with paradigm disputes. A mixture of political, organisational and paradigm aspects in suppression cases is quite common.

The author has made a study of a sizeable number of cases of suppression of individuals involved in environmental research and teaching in Australia and New Zealand. One conclusion, in agreement with the findings of the few other investigations in this area, is that the scale of suppression in academia is much greater than usually realised[4]. Furthermore, one investigator in this area concluded that "the most direct attacks on academic freedom have come from the academic authorities themselves, and it is their gross and arbitrary power which continues to constitute the most serious threat to educational freedom"[5]. This situation points to the importance of understanding how and for what purposes political power is exercised by leading academics and administrators. The perspective adopted here is that political power exercised by academic élites can be usefully understood as being based on service to non-academic élites and on disciplinary exclusiveness maintained via specialisation and isolation of work from the public. Here only some general descriptive and summary comments are made. Detailed examples, argument and documentation are reported elsewhere[6].

POWERFUL GROUPS OUTSIDE THE ACADEMY

Those who are high up within the academic power structure have considerable interaction - for example in providing advice, planning curricula, soliciting funds and making social contact - with people and organisations outside the academic community, particularly with those in positions of power. The results of this interaction can be seen as

a quid pro quo. From powerful non-academics, the academics receive funding and some prestige. From powerful academics, the non-academics receive help in channelling research and teaching into areas selectively useful to the latter's interests, a process which involves grant money, future job prospects and possible applications for research[7].

The patronage of leading academics by powerful non-academics is threatened when issues are taken into the domain of public debate, since the legitimacy conferred by the stamp of unanimous scholarly approval is undermined. For this reason there is a strong preference among politically powerful academics for patterns of closed decision-making. When issues are taken to the public by concerned academics, often this is seen as inappropriate or even contrary to proper academic behaviour.

The perspective helps to explain cases in which academics who have been outspoken about environmental or other sensitive issues are denied jobs, promotions, tenure or are sacked, or in which efforts in these directions are made by corporate or government vested interests and their academic allies. Such cases can arise in the areas of forestry, chemistry (for example, over the issue of lead in petrol), entomology and political science, among others.

The influence of powerful groups outside the academy also helps to explain the existence or otherwise of research and teaching in particular areas. For example, the almost total lack of peace research or teaching in Australian universities can be seen as an accommodation to the influence of the military and its allies in government and industry. In contrast there are substantial academic programmes in nuclear physics and nuclear engineering.

In summary, academic institutions are not organised or run solely on the basis of ivory tower scholastic criteria, but in no small measure are run on the basis of the exercise of political power by academic élites who personally or structurally have close links with powerful groups outside the academy.

DISCIPLINARY EXCLUSIVENESS

Many who rise within the academic power structure do so via at least a moderately successful and orthodox research career in a fairly narrow specialisation. The bases on which power and prestige rest within the academic hierarchy therefore depend partly on the status of specialised research within recognised disciplines. This status in turn appears to depend in part on the discipline in question being off limits or opaque to non-specialists and to the public. Only to the extent that the essence of the work in a discipline and its specialities is either a special preserve of else not readily grasped by outsiders is it possible for members of the discipline to claim exclusive rights to judge the importance of work in the discipline.

With this perspective, it is understandable that many academics in traditional disciplines would be antagonistic to potentially substantial academic programmes which are either trudy interdisciplinary or popular with students or the public. This helps to explain why universities such as Murdoch, Griffith or the Australian National University Institute of Advanced Studies, founded along interdisciplinary lines, have reverted to relatively traditional departmental patterns. It also helps to explain the lack of academic interest in areas which generate public interest or participant involvement, such as parapsychology or Alcoholics Anonymous.

In recent years the environmental area has been a source of research and teaching which is potentially threatening to many parts of the traditional academic power structure. By its nature much environmental research is interdisciplinary. The results of this research often offer a challenge to existing policies and practices of government and industry, and the area is one of high public concern. Such research thus can provide a threat to the hierarchical academic power structure[8]. Indeed, traditional disciplinary approaches and traditional hierarchical organisational structures seem quite inadequate bases for getting to the roots of environmental problems, as argued elsewhere[9]. The same strictures apply to the achievement of successful environmental education.

A study of environmental programmes in US universities concluded that two features were necessary, though not alone sufficient, for their success:

1. Substantial or complete control of the faculty reward structure and

2. Freedom to be innovative in introducing course material, educational programs, work study programs, and curriculum requirements for degrees.[10]

These requirements obviously conflict with the maintenance of the current academic power structure, and hence are seldom achieved in practice.

Because the existing emphases in universities are predominantly in traditional subject areas, using traditional methods in traditional organisational structures, there is an in-built resistance to changes in this prevailing pattern, such as offered by innovative interdisciplinary research and teaching programmes in areas such as the environment, alternative technology, women's studies or participatory democracy. Those who do research or teaching in such topics often find it hard to find jobs, get tenure or promotions, get grant money, maintain proper staffing levels or introduce desired innovations. These problems are sometimes imposed in a manner which can be widely seen as contravening academic principles; more often the discouragement of interdisciplinary and socially challenging research and teaching can be justified or rationalised in terms of a commitment to traditional disciplinary norms of scholarship and service to the

interests of existing powerful groups. For example, economic geology is accepted as an academic subject, while environmental geology is virtually nonexistent.

In any case, it is most difficult to change institutions from the usually narrow purposes for which they were designed. In the area of energy and environment in the US, no holistic study programmes were established at universities before 1971. Thus the programmes followed rather than preceded the development of widespread public interest and definition of the main problems[11], a situation which also applies in Australia. This suggests that the generation of public interest in issues and the creation of independent, citizen-oriented research groups may have a larger impact on existing scholarly institutions than isolated attempts for change from within.

Finally, it may be argued that many characteristics of the academic community have evolved out of the community's history of interaction with government, business and other groups. For example, the tendency of academics to avoid controversial public issues can be interpreted as an adaptive response to avoid alienating potential sources of patronage. More generally, the process of professionalisation can be seen as a process of transforming special knowledge and skills into social and economic rewards[12]. The academic power structure would seem to be an important component in this process.

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A framework for selecting educational method in work organisations

J. Martin

In the 1970s the field of adult learning blossomed into an area of respectable academic pursuit. However, there are still only a few vaguely defined landmarks to guide the practising adult educator. The primary emphasis to date has been on understanding the characteristics of the adult learner and then identifying the appropriate educational techniques to be used with these learners.

A third factor, that of the environment or organisational setting, within which the teaching is to be carried out and where the learning is to be put to use, has not been given enough consideration in determining approaches to teaching adults. This is somewhat surprising as there is vast literature on the study of organisations most of which allows the adult educator to understand the characteristics of their organisational setting.

This paper identifies a framework for determining appropriate teaching methods in terms of the requirements of the organisational setting. The author's purpose in doing this is to provide a framework for research into identifying more specific guidelines for teaching adults.

It indirectly raises a number of moral and ethical issues relating to the role of adult educators in work organisations.

INTRODUCTION

In this paper I want to look specifically at an appropriate framework for matching educational method with organisational needs. The concepts of training, staff development and education are considered synonymous for the purpose of this discussion, however, I would be among the first to acknowledge that each have a different focus in a work environment.

The reason why this framework is being proposed is that the practising adult educator in work organisations in Australia over the last decade has been bombarded with a plethora of information on the adult as learner that in many instances has led to confusion, rather than clarification, as to the most effective ways for carrying out their function. This information explosion in the area of adult learning has covered a wide range of characteristics of the adult learner, yet little attempt has been made to build this information into a comprehensive model for the practising adult educator in work organisations. The reason for this is that theories of adult learning have been at such a general, abstract level, the practising adult educator has difficulty applying these theories to their particular situation. This has been compounded by the fact that most hypotheses and theories focus on a particular aspect of the adult as learner and as such there have been few worthwhile attempts to develop models that account for all of these aspects.

One of the first steps in a training and development programme is to conduct analyses of the organisation, that is, the group of people where the problem is perceived to exist. These analyses vary in name;

organisation, job, task, although in methodology they are essentially the same. The main distinction being the level of resolution of the particular analysis.

The purpose of such an approach is to identify the performance discrepancy, that is, the difference between desired performance and actual performance, and this traditionally takes an empirical orientation. This orientation seeks information on the success with which work is performed and is the basis for training and development activities, as well socio-technical, organisation and system changes. Traditionally, the next step is to draft a training programme based on those areas identified as having the largest performance discrepancy that can best be overcome by training rather than other organisation development activities.

The problem with this approach is that a crucial analysis is usually left out, and even when it is included, has not warranted the emphasis I believe it requires. This analysis is identifying the most appropriate methods by which training and development activities can be carried out. This is a main theme of this paper, based on the axiom that you cannot divorce what is learnt from the way it is learnt. Therefore in this paper we attempt to apply one of the more widely known holistic models of the adult learner to a model, or framework, for identifying the characteristics of an organisation. This is done in the belief that the organisational setting, or context within which educational activities are to be carried out, is of primary importance in determining the educational methods, or strategies, that are to be adopted within that organisation.

In presenting this framework there are several important assumptions that need to be stated if it is to be a practical guide to the training and staff development officer. These assumptions are, firstly that the organisation has clearly defined goals and that the structure of the organisation is seen as effective - if not the most effective possible - in working towards these goals. A second assumption is that the training and staff development officers' perception of their role is that it is to develop the human resources of the organisation so that they can more efficiently meet the prescribed goals within the defined organisation structure.

As I have already said, a basic assumption is that the most appropriate educational methods in an organisation are determined by the context in which they are to be applied. Therefore, I will first outline that part of the framework which identifies the nature of the organisation; then identify an holistic model of the adult learner, and finally; discuss the relationship between these two models, which is the main purpose of the paper, highlighting the importance of the relationship between the two frameworks. This will include suggestions on areas of further research and investigation in testing aspects of and applying the model to a range of organisational settings.

UNDERSTANDING ORGANISATION

I have already stated that the study of the adult as learner has focussed primarily on aspects of adult learning with relatively few holistic studies of all aspects of the adult in a learning state.

This is equally true in the study of organisations. Stogdill states that the "unsatisfactory condition of organisation theory is evidenced by the great variety of theories available".[1] He lists eighteen different conceptualisations of groups and organisations and states that the theories of organisation are not discrete, often with "two or more of the different points of view combined".[2] The basic premises and orientations in theories of organisation as identified by Stogdill are as follows:

1. Organisation as a cultural product.
2. Organisation as an exchange agent with its environment.
3. Organisation as an independent agency.
4. Organisation as a system of structures and functions.
5. Organisation as a structure in action over time.
6. Organisation as a system of dynamic functions.
7. Organisation as a processing system.
8. Organisation as an input-output system.
9. Organisation as a structure of subgroups.
10. Subgroups in interaction with the organisation.
11. Subgroups in interaction with each other.
12. Groups as biological-social necessities.
13. Groups as cultural products.
14. Groups as independent entities.
15. Groups as interaction systems.
16. Groups as interaction-expectation systems.
17. Groups as collections of individual members.
18. Groups as summations of member characteristics.[3]

This list confirms the view that organisations are complex inter-relations of people and things. It is provided in order to highlight this fact and to stress that training and development officers should be aware that their organisation is truly unique, requiring its own particular strategy of training and development.

In a comprehensive paper on the comparative study of organisations Burns, in taking a straightforward, pragmatic view of organisations, says "that it should be clearly feasible to list a number of attributes of organisations which will vary quantitatively or qualitatively between different organisations, and which would, when ordered, correlated, and contrasted, yield a simple classification of organisations that might of itself contribute to an understanding of them".[4] As a result he has constructed the following list of variables that characterise organisations:

Economic Dimension

1. Number of employees.
2. Capital investment.
3. Number of clients, customers, subscribers (i.e. non-employed members).
4. Horse-power ratio (or some other measure of proportion of inanimate power to manual labor force).
5. Direct labor costs in proportion to total costs.

Administrative Dimension

6. Proportion of managers and supervisors to total personnel.
7. Number of administrative levels.
8. Number of different job titles and distribution of personnel between them.
9. Line-staff ratio.
10. Degree of geographical concentration or dispersal of resources, personnel, and destination of output.
11. Method, frequency, and direction of communication within the organisation.
12. Form of control exercised over staff or members.
13. Span of control (number of subordinates per supervisor)
14. Responsibility (relative frequency of monitoring by superiors).

Institutional Dimension

15. Degree of specificity, in quantifiable terms, of goals and output, e.g. profit, remuneration, hours of work, in the case of businesses, as against effectiveness of hospitals as judged by patients, professional press, staff, sponsoring body.
16. Extent (number, comprehensiveness, particularity) of formal rules.
17. Degree of specification of jobs (or some other measure of extent to which performance is programmed by central or higher administration).
18. Specialised training requirements, educational qualifications, etc.
19. Complexity and duration of job cycle.
20. Degree of segmentation (i.e. extent to which persons with different job titles work in the same unit) or segregation.
21. Frequency and nature of interaction with people and places outside the organisation.
22. Visibility of individual's performance in comparison to that of others in organisations.
23. Variation (e.g. ambiguity, conflict) in requirements and assessment of individuals.[5]

The framework adopted in this paper is an extension of Burns' variables that characterise organisations and is one provided by Burns and Stalker.[6] They see organisations as being characterised by a management system that can be identified on a continuum between what they term mechanistic and organismic, or organic, organisation type. The mechanistic organisation has the following characteristics:

(a) specialised differentiation of functional tasks into which the problems and tasks facing the concern as a whole are broken down;

(b) the abstract nature of each individual task, which is pursued with techniques and purposes more or less distinct from those of the concern as a whole; i.e. the functionaries tend to pursue the technical improvement of means, rather than the accomplishment of the ends of the concern;

(c) the reconciliation for each level in the hierarchy, of these distinct performances by the immediate superiors, who are also, in turn, responsible for seeing that each is relevant in his own special part of the main task;

(d) the precise definition of rights and obligations and technical methods attached to each functional role;

(e) the translation of rights and obligations and methods into the responsibilities of a functional position;

(f) hierarchic structure of control, authority and communication;

(g) a reinforcement of the hierarchic structure by the location of knowledge of actualities exclusively at the top of the hierarchy, where the final reconciliation of distinct tasks and assessment of relevance is made;

(h) a tendency for interaction between members of the concern to be vertical, i.e. between superior and subordinate;

(i) a tendency for operations and working behaviour to be governed by the instructions and decisions issued by superiors;

(j) insistence on loyalty to the concern and obedience to superiors as a condition of membership;

(k) a greater importance and prestige attaching to internal (local) than to general (cosmopolitan) knowledge, experience, and skill.[7]

At the end of the continuum the organic system is typified by:

(a) the contributive nature of special knowledge and experience to the common task of the concern;

(b) the realistic nature of the individual task, which is seen as set by the total situation of the concern;

(c) the adjustment and continual redefinition of individual tasks through interaction with others;

(d) the shedding of responsibility as a limited field of rights, obligations and methods. (Problems may not be posted upwards, downwards or sideways as being someone else's responsibility);

(e) the spread of commitment to the concern beyond any technical definition;

(f) a network structure of control, authority, and communication. The sanctions which apply to the individual's conduct in his working role derive more from presumed community of interest with the rest of the working organisation in the survival and growth of the firm, and less from a contractual relationship between himself and a non-personal corporation, represented for him by an immediate superior;

(g) omniscience no longer imputed to the head of the concern; knowledge about the technical or commercial nature of the here and now task may be located anywhere in the network. This location becoming the ad hoc centre of control authority and communication;

(h) a lateral rather than a vertical direction of communication through the organisation, communication between people of different rank, also, resembling consultation rather than command;

(i) a content of communication which consists of information and advice rather than instructions and decisions;

(j) commitment to the concern's tasks and to the technological ethos of material progress and expansion is more highly valued than loyalty and obedience;

(k) importance and prestige attach to affiliations and expertise valid in the industrial and technical and commercial milieux external to the firm.[8]

Both the mechanistic and organic organisations represent the pure ends of the continuum. Burns and Stalker regard the mechanistic type as being appropriate to organisations functioning in a stable environment while the organic system is appropriate to changing conditions. The problem with this notion is that different rates of change are impacting on the different subsystems within the larger organisational system. This is compounded in organisations containing highly differentiated subsystems within them.

Lawrence and Lorsch account for this aspect of varying rates of change impacting on subsystems of organisations in their work on the differentiation and integration of these subsystems. They state "that to understand the environmental demands on an organisation we start first by looking at how much differentiation should exist among the various groups"[9] within an organisation. "This depends", they believe, "upon what internal characteristics of each group must develop to carry out planned transactions with its assigned part of the environment".[10] Handy sees differentiation as different parts of the organisation having:

(a) differing time horizons (long or short);

(b) differing orientations to the market (customer needs or product quality);

(c) differing interpersonal styles;

(d) differing degrees of formality in the structure.[11]

In an organisation with highly differentiated functions ranging from research and development to the assembly line, it would be imperative, if the organisation as a whole was to be effective, for these highly differentiated subsystems to be integrated in such a way that the

organisation can, synergistically, capitalise on the contribution each has to make to its overall objectives. "When units are highly differentiated it is more difficult to achieve integration among them than when the individuals in the units have similar ways of thinking and behaving."[12] As a result Lawrence and Lorsch believe that "when groups in an organisation need to be highly differentiated, but also require tight integration it is necessary for the organisation to develop more complicated integrating mechanisms".[13] They also believe that the basic organisational mechanism for achieving integration is the management hierarchy. This aspect is significant in terms of Burns and Stalker's continuum for a highly differentiated organisation that required tight integration would have the propensity to adopt a management style more towards the mechanistic end of the continuum.

The Burns and Stalker continuum does not address itself specifically to the nature of interpersonal relationships, or climate of the organisation, as it relates to the structure of the organisation. This is taken up by Morse and Lorsch[14] for example, who have investigated the relationship between structure and climate.

In their study of two research laboratories with unpredictable research and development tasks, one an effective performer and the other less effective, and two containing plants involving the manufacture of standardised items with automated high speed production lines, one plant also more effective than the other, they "found that the more effective units had a better fit between structure and organisation climate than the less effective units".[15] French and Bell's summary of the Morse and Lorsch study is shown in Table 1.

A significant conclusion from the Morse and Lorsch study is that it is important for an "effective fit between task, structure and climate" to be made if there is to be "more feelings of competence, and implicitly organisational effectiveness in organisations".[17]

In looking at the relationship between task, structure and climate in terms of organisation development strategies French and Bell believe "that a number of contingencies may determine the best structure, best design of tasks, or best leadership style".[18] They conclude by saying that "the question is not which is better, an organic or mechanistic system? but that the question needs to be posed in terms of contingencies, for example:

1. What is the most effective mix of organic and mechanistic characteristics for a given organisation or unit and its current circumstances? Or,

2. Under what conditions is the organic system superior to the mechanistic, and vice versa".[19]

The contribution by theorists such as Morse, Lorsch, and Lawrence, French and Bell - and no doubt many others, too numerous to include here - have developed greater understanding of the nature of organisations that can be viewed as being on a continuum conceptually similar to that of Burn's and Stalker's. These theorists illustrate the opportunities available to the training and development profes-

sional to take from the literature, frameworks, or models, that help them to develop understanding of their organisational setting.

THE ADULT LEARNER - A TOTAL VIEW?

I have already made the assertion that most theories of adult learning focus on a particular aspect of the adult as learner with the result that there are few holistic models which account for all of these aspects inter-relating in a purposeful way. This is exemplified by Kidd when he identifies "concepts that have yielded useful hypotheses for investigation",[20] such as:

- the life span
- change in role
- "studentship" and "membership"
- maturation
- adult experience
- the self-learner
- the significance of "time"
- "old age"[21]

These are valuable concepts on which considerable research and investigation have been carried out, however, it is still largely hit and miss depending to a great degree on how skilful the practitioner is in applying them, on the basis of his or her personal experience, to their organisational setting.

An holistic framework for understanding the adult learner is that presented by Malcolm Knowles. He has identified a process for facilitating adult learning which he terms andragogy - self-directed adult learning. He contrasts on a continuum this andragogical process against the traditional theories of teaching, or training, commonly called pedagogy - the art and science of teaching children. Knowles believes that adults, mature, motivated and experienced human beings, are capable of being self-directed in their learning and that the role of the adult educator is to assist the learner in identifying needs, establishing a learning program with the learner and assisting in the evaluation by the learner of that program. A comparison of the assumptions and designs of pedagogical and andragogical methods is shown in Table 2.

The assumptions that constitute Knowles andragogy, pedagogy continuum interrelate to give direction to the process elements of the learning environment. He believes that the differences between children and adults begin with the concept of self,

> A child first sees himself as a completely dependent personality. He sees himself in his first cons ousness as being completely dependent upon

> the adult world to make his decisions for him, to feed him, to change his diapers, and to see where the pin is sticking. During the course of his childhood and youth, that dependence is reinforced as decisions are made for him in the home, at school, in church, on the playground, and everywhere he turns. But at some point he starts experiencing the joy of deciding things for himself ... To be adult means to be self directing. Now at the point at which this change occurs, there develops in the human being a deep psychological need to be perceived by himself and by others as being indeed self-directing. This is the concept that lies at the heart of andragogy. Andragogy is based upon the insight that the deepest need an adult has is to be treated as an adult, to be treated as a self-directing person, to be treated with respect. Andragogy is student-centered and problem oriented. [23]

While Knowles postulated the child, adult dichotomy to give examples to his pedagogy - andragogy continuum he has always felt that andragogical assumptions apply equally to children. In fact, he has become more convinced of this view in recent years.[24]

Knowles regards the andragogical model as a process model in contrast to the content models employed by traditional pedagogical educators. He sees the differences as: "in traditional education the teacher (or trainer ...) decides in advance what knowledge or skills need to be transmitted, arranges this body of content into logical units, selects the most efficient means for transmitting this content (lectures, readings ...) and then develops a plan for presenting these content units in some sort of sequence ... The andragogical teacher (facilitator, consultant ...) prepares in advance a set of procedures for involving the learners (and other relevant parties) in a process involving these elements: (1) establishing a climate conducive to learning; (2) creating a mechanism for mutual planning; (3) diagnosing the needs for learning; (4) formulating program objectives (which is content) that will satisfy these needs; (5) designing a pattern of learning experiences; (6) conducting these learning experiences with suitable techniques and materials; and (7) evaluating the learning outcomes and re-diagnosing learning needs".[25]

The important difference between the andragogical (process) and pedagogical (content) models "is not that one deals with content and the other does not; the difference is that the content model is concerned with transmitting information and skills whereas the process model is concerned with providing procedures and resources for helping learners acquire information and skill".[26]

This is a particularly important distinction which is of considerable significance in this paper. The power, authority, responsibility functions on the Burns and Stalker mechanistic organismic continuum correlate strongly with the pedagogical notion of transmitting, or giving information to other people. Information that is not necessarily, in their eyes, what they need to, or should know. This

corresponds to mechanistic organisation characteristics. Conversely the andragogical model is concerned with assisting people to acquire information and skill which they perceive as necessary for their job. Likewise, this corresponds to organismic organisation characteristics.

A CONCEPTUAL FRAMEWORK FOR SELECTING EDUCATIONAL METHODS IN WORK ORGANISATIONS

The conceptual framework for selecting educational methods in work organisations proposed is based on the relationship between the Burns and Stalker mechanistic, organismic and the Knowles andragogy, pedagogy continuum. This relationship is represented diagrammatically in Figure 1.

The independent variables are those that relate to organisations while the dependent variables relate to the adult learner. As I have said earlier this relationship, that is, educational methods dependent on the content within which these methods are to be applied is a basic assumption in this paper.

Diagrammatically the relationship between these two concepts is a simple one. The first task is to analyse the organisation, which can be as small as two people working together, or a large diverse corporation - although training and development professionals rarely take on groups as large as this at any one time. This analysis should not only be seeking information on the performance discrepancies, that is, the difference between desired performance and actual performance, it should also seek to analyse the nature of the organisation in terms of the eleven characteristics that constitute the Burns and Stalker continuum. Once the decision is made as to where the organisation lies on the continuum one can relate this to the assumption about the adult as learner as per the andragogy, pedagogy continuum, then begin to consider the appropriate educational method that may be used in that setting.

An example of this relationship in action would be where an organisation was identified as having characteristics which allowed it to be placed closer to the mechanistic end of the continuum in such a way that one could say it was 75% mechanistic, 25% organismic. Taken as simply as this it tends to be a rather crude picture of the overall nature of an organisation, however, in arriving at this position one should have gained a more specific understanding of the reasons why this assessment is made. That is, what are the characteristics of the organisation in terms of the eleven criteria that constitute the Burns and Stalker continuum? Where this broad statement of the organisation, that is, 75% mechanistic and 25% organismic, is inappropriate, or specifically, misleading, is when the eleven criteria that characterise this continuum are poorly correlated and there is a significant range between variables and the process of aggregating the criteria clearly distorts the true situation. For example, the organisation may have at one extreme a high degree of specialised differentiation of functional tasks with which the problems and tasks facing the concern as a whole are broken down characterising it as highly mechanistic and, quite feasibly, at the other extreme, communication within the organisation which consists of information and advice rather than instructions and decisions which are characteristic of the organismic

end of the continuum. In developing their framework Burns and Stalker suggest that such diversity between characteristics would in fact be rare.[27]

The next step is to relate the nature of the organisation to the Knowles continuum about the assumptions of the adult learner. In the case above one could assume that the educational methods to be used in this organisation would be based on 75% pedagogy and 25% andragogy assumptions.

The Knowles continuum is a polarity with black and white at either end and varying shades of grey between. The 75%/25% relationship merely gives the trainer a guide as to the power trainees can exercise over their programmes. The ratio above suggests a major role for the trainer in identifying needs, establishing learning outcomes and being largely responsible for the structuring of what would tend to be a more formal programme relying on a significant use of traditional pedagogical methods. Conversely the trainees could be expected to play a role that tended to be more on a micro scale, taking responsibility for ordering their learning needs in terms of the overall programme, actively participating in discussion and syndicate group work and using their own work situation as the basis for case study material.

It is recognised that to identify characteristics of a particular organisation in terms of the Burns and Stalker continuum is a difficult task, especially when one considers the range of interrelating factors, many of which do not readily lend themselves to empirical testing and analysis. An assertion in this paper is that although this is difficult it is better to attempt this task, regardless of how superficial and subjective it may be, as it will be better than an off-the-cuff decision which is certainly based on subjective data.

The methods by which this identification of the organisation is determined is an important aspect of educational programmes for training and staff development officers conducted by the School of Administrative Studies at the Canberra College of Advanced Education and is the basis of my continuing research.

Acceptance of this relationship and more importantly, the dependent, independent relationship of first assessing the organisations, then selecting educational methods that are appropriate to the power people have over their learning in that context raises important philosophical questions about the role of the training and staff development officer. In the introduction I said that an assumption in this paper is that the role of the training and staff development officer is to develop the human resources of the organisation so that these resources can more efficiently meet the prescribed organisation goals, within the defined organisation structure. I would expect that most managers would, on first reaction agree with the concept that training and development is subservient to the organisation within which it operates. However there is a considerable body of literature on human resource development which suggests that this view does much to stifle growth and development of the individual, and ultimately of the organisation. For example, Chris Argyris and Donald Schon who are eminent in the field of neo-human relationists believe that an individuals growth and development is constrained by the organisation

within which they exist.

Argyris regards mechanistic organisation structures as being responsible for many of the current problems that exist within them, such as low morale, apathy towards work, low productivity, high absenteeism and turnover and little concern for the organisation. According to Argyris, seven changes should take place in the personality of individuals if they are to develop into mature people over the years. He believes these changes occur on a continuum and that the healthy personality develops along the continuum from maturity to immaturity. The seven changes are shown diagrammatically in Figure 2.

In the mechanistic organisation design Argyris believes the individual is fitted to the job; "this design is based upon four concepts of scientific management: task specialisation, chain of command, unity of direction, and span of control".[29] Because of the inability of the individual to seek and accept responsibility, to use and develop his abilities in a way that is both beneficial to himself and the organisation he is restricted in his ability to move across the continuum towards being a more mature person.

The training and staff development officer operating in a mechanistic organisation, who has competent, mature individuals involved in his programmes, has to give considerable thought to the purpose of his activities. Is he simply providing a staff function that will help equip line personnel with skills and abilities to carry out their work or does he see his role as including an adaptive function as a catalyst for change; change which he personally regards as being worthwhile in terms of the organisation's structure, the way people work within it and the methods by which the organisation meets its goals?

If he chooses the latter course of action and, using our example above, conducts programmes based on assumptions about participants that reflect a 75% andragogy, 25% pedagogy mix he is running the risk of, to use an old analogy, taking a piece out of the jig-saw-puzzle, changing its shape through training, then expecting it to go back into the puzzle and behave differently. What inevitably happens is that the piece is forced to change back into the old shape if it is to fit back into the organisation structure, or even worse still, the individual decides that he cannot work in the organisation because of the constraints on him and ultimately resigns from its ranks.

SUMMARY

An unquestioning acceptance of the relationship proposed in this paper, this is, that educational methods used in organisations are dependent on this context can lead to a waste of resources on training and staff development if consideration is not given to the appropriateness of the present organisation characteristics and the capabilities, desires and attitudes of its human resources beforehand.

Careful consideration of this framework not only identifies strategies, or educational methods to be used in an organisation, it also highlights the need for the training and staff development officer to have a much wider view of their activities appreciating the inextricable link between organisational training and development and other organisation development activities.

TABLE 1: SYSTEM CONTINGENCIES IN FOUR ORGANISATIONS

Type of Organisation	Tasks	Structure	Climate	Feelings of Competence	Organisation Effectiveness
Manufacturing plant	Predictable manufacturing tasks	Highly structured and defined roles, duties, relationships	Influence concentrated at the top	Higher	Effective
		Less structured and defined	Egalitarian distribution of influence	Lower	Less effective
Research laboratory	Uncertain research tasks	Low degree of structure in roles, duties, and relationships	Egalitarian distribution of influence	Higher	Effective
		More structure	Influence tending to concentrate at the top	Lower	Less effective

Based on material in John J. Morse and Jay W. Lorsch, "Beyond Theory Y", Harvard Business Review, 48 (May-June 1970) 61-69.[16]

TABLE 2 : A COMPARISON OF ASSUMPTIONS AND PROCESSES OF TEACHER-DIRECTED (PEDAGOGICAL LEARNING AND SELF-DIRECTED (ANDRAGOGICAL) LEARNING[22]

ASSUMPTIONS		
About	PEDAGOGICAL Teacher-Directed Learning	ANDRAGOGICAL Self-Directed Learning
Concept of the Learner	Dependent Personality	Increasingly Self-Directed Organism
Role of Learners' Experience	To be Built on More Than Used	A Rich Resource for Learning
Readiness to Learn	Dictated by Curriculum	Develops from Life Tasks & Problems
Orientation to Learning	Subject-Centred	Task or Problem Centred
Motivation	External Rewards and Punishments	Internal Incentives, Curiosity
The body of theory and practice on which teacher-directed learning is based is often given the label "Pedagogy", from the Greek work paid (meaning child) and agogus (meaning guide) - thus being defined as the art and science of teaching children. The body of theory and practice on which self-directed learning is based is coming to be labelled "Andragogy", from the Greek word aner (meaning adult) - thus being defined as the art and science of helping adults (or even better, maturing human beings) learn.		

PROCESS ELEMENTS		
Elements	PEDAGOGICAL Teacher-Directed Learning	ANDRAGOGICAL Self-Directed Learning
Climate	Formal Authority-Oriented Competitive Judgmental	Informal, Mutually Respectful, Consensual, Collaborative, Supportive
Planning	Primarily by Teacher	By Participative Decision-making
Diagnosis of Needs	Primarily by Teacher	By Mutual Assessment
Setting Goals	Primarily by Teacher	By Mutual Negotiation
Designing a Learning Plan	Content Units, Course Syllabus, Logical Sequence	Learning Projects, Learning Content Sequenced in Terms of Readiness
Learning Activities	Transmittal Techniques, Assigned Readings	Inquiry Projects Independent Study Experiential Techniques
Evaluation	Primarily by Teacher	By Mutual Assessment of Self-Collected Evidence

FIGURE 1 : A CONCEPTUAL FRAMEWORK FOR SELECTION EDUCATIONAL METHODS IN WORK ORGANISATIONS

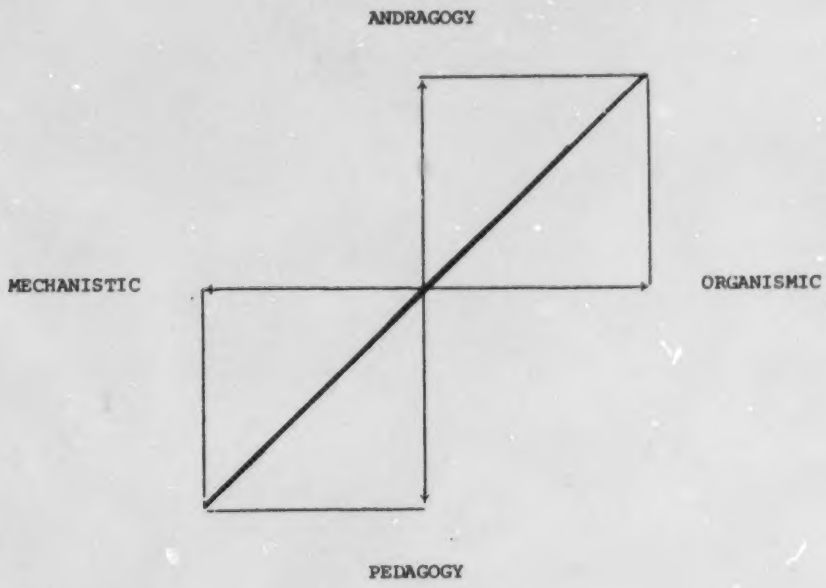

FIGURE 2 : CHRIS ARGYRIS IMMATURITY/MATURITY CONTINUUM[28]

IMMATURITY		MATURITY
Passive	⟷	Active
Dependence	⟷	Independence
Behave in few ways	⟷	Capable of behaving in many ways
Erratic shallow interests	⟷	Deeper and stronger interests
Short time perspective	⟷	Long time perspective
Subordinate position	⟷	Equal or superordinate position
Lack of awareness of self	⟷	Awareness and control over self

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PART V

PROFESSIONAL DEVELOPMENT OF ACADEMIC STAFF

23. Who needs a policy?
    B.W. Imrie & H.G. Murray

24. Self appraisal in professional development of tertiary teachers
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25. Explaining and lecturing: Control, direction and freedom
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26. Staff development workshops: Freedom and control in theory and practice
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27. A policy-making workshop
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28. Symmetrical communication: Developing understanding and consensus in course teams
    S. Kemmis

INTRODUCTION TO PART V

A number of the papers in Part II questioned the extent to which tertiary teachers should control the method and content of learning for their students. This part examines a similar issue, but from the viewpoint of teachers rather than students.

In recent years most universities in Australia and New Zealand and many of the larger Institutes of Technology in Australia have established educational research and development units. These units have a variety of names and vary in their functions, but all have the common task of seeking to improve teaching and learning in the institution in which they are established. One problem which these units continually face is to decide the extent to which members of the units should attempt to persuade teachers in their institution to adopt particular approaches to course design, teaching strategies and alternative systems of assessment.

Each of the papers in this section discusses some aspect of the professional development of academic staff. In the opening paper, B.W. Imrie and H.G. Murray examine the situation in New Zealand, Canada, the United Kingdom and Australia, and derive certain principles which may be used in any professional development programme which focuses on the teaching role.

The paper which follows, by D. Boud, the abstract by G. Brown, the paper by A.J. Dare, and a second paper by B.W. Imrie and H.G. Murray, all report workshops held at the HERDSA conference in which participants took an active part in coming to the conclusions reported here.

Each workshop had a distinctive emphasis: Boud's on the need for developing skills of self-appraisal, thus avoiding problems of control; Brown's on increasing the amount of active learning in lectures, thus enhancing students' freedom to learn in ways which are most effective for them; Dare's on the need for those leading professional development programmes to base activities much more on the experiences and needs of participants than on their own preconceived ideas of how to improve teaching; and Imrie and Murray's on the formulation of acceptable professional development policies.

The concluding paper in this section, by S. Kemmis, examines an entirely different aspect of professional development, one which results from membership of a course planning team. Kemmis describes techniques which have proved useful at Deakin University for helping individual academics to work as members of a team. Under such conditions there may be a loss of individual freedom, but the gains for all members of the team far outweigh any losses.

Freedom and control in higher education — Who needs a policy?

B.W. Imrie & H.G. Murray

The question posed in the title refers to policy for the professional development of academic staff. Policies and professionalism are discussed with reference to experiences in Australia, Canada, New Zealand and the UK. A professional development policy is considered to be a prerequisite for in-service programmes for academic staff, for evaluation of academic performance and career related decisions. Members of a profession should accept responsibility for the practice of the profession.

INTRODUCTION

The terms 'faculty development' (Canada and the USA) and 'staff development" (Australia, New Zealand and the UK) have been widely used during the last decade but more attention is now being given to professional development as a more comprehensive concept which includes all of the professional activities and responsibilities of academic staff. In the USA, Bakker et al (1977) prefer professional development to faculty development, as a more inclusive term,

> Since it connotes concern for improving the conditions of student learning, awareness of changes in the role of the teacher, and involvement with the health of educational institutions.

The answer to the question posed in the title of this paper will be considered in five parts, with reference to (a) staff associations (Australia) or associations of university teachers (Canada, New Zealand and UK), (b) university councils or senates, (c) university departments and heads of departments, (d) individual staff and (e) students. Before doing so it is worth discussing some of the implications of professionalism and of policies.

POLICIES AND PROFESSIONALISM

For the purposes of this paper, it is suggested that a policy is an affirmation of values, beliefs and principles as well as a statement of aims, requirements and expectations. For professional development the areas of professional responsibility are teaching, research, administration, consultancy and liaison with other bodies. In the USA and Canada, these areas are identified as teaching, research and service (to university and to community) (e.g. AAUP, 1975).

Professionalism, the practice of being professional, is identifiable when attitudes are consistent with performance at professional levels of knowledge, ability and skill. Chisman (1976) describes an attitude as

consistent when the components of attitude - faith, belief and action tendency - are consonant with each other and with an intended outcome. It may be inferred that a fundamental principle or prerequisite for an operational policy of professional development is that of personal responsibility and accountability.

As such, individual professionalism is also a consequence of professional development in the sense that there is a continuing responsibility for performance standards i.e. an accountability which implies evaluation (Imrie, 1976). Furedy and Furedy (1979) identify professionalism as the behaviour of experts in the conduct of their calling or profession but for professionalism in staff development, they quote Matheson: "You don't have to be an expert to be professional; professionalism refers to maximising the potentialities of a situation."

Without denying any distinctions (fine or otherwise) it may be more useful to consider expertise as something an expert has with reference to a body of knowledge (law, medicine, engineering and even pedagogy) while professionalism lies in the effective application of that expertise to the solutions of problems. In universities, solutions to problems (and opportunities) of development, often require consideration of people (staff and students) as individuals not as aggregates for normative generalisations - every person is a special case!

Professionals or Polarisation?

Certainly there have always been tensions between research and teaching, between the subject and the student and between freedom and control. Does the academic teach the subject or teach the student? Must there be conflict between individual freedom and collective action or control? Do universities make niggardly opportunities for research and reward it richly while demanding a great deal of teaching and reward it poorly? Ironically this question was raised by Stretton (1965) as a problem of university expansion at a seminar sponsored by the Federation of Australian University Staff Associations (FAUSA). The question is still pertinent although expansion has ceased and retrenchment or steady-state are now used to describe financial conditions of university government. Unfortunately steady-state is quite inappropriate as a description of the effects of so-called financial or cost-benefit policies on departments and on individual staff, particularly tutors (Australia), junior lecturers (New Zealand), teaching assistants (Canada) and others on fixed-term contracts. It is relevant to the professional development of academic staff (Roe, 1980) to question what may be lost by staff and students if (excessive) cost-benefit requirements significantly diminish personal relationships and the quality of university life.

Do academic staff consider themselves to be professional teachers as well as professional historians, chemists and mathematicians, for example? Although entry to the academic profession is by virtue of qualifications obtained by study within an academic discipline, and of experience from professional practice, the management and supervision of research require further professional development in addition to keeping up with the literature of the discipline. Is it redundant to ask if professors are also practising members of a teaching profession with

similar professional implications for study and performance? In all such discussions it is too easy to polarise the argument, teaching v. research, process v. product, education v. qualification or freedom v. control - the polarity between voluntary action and coercion that leaves little room for development (Mandelbaum, 1979). The aim of professional development is to optimise (control) for the benefit (freedom) of the individual and of the academic community, the knowledge, attitudes and abilities consistent with professionalism in teaching, research and administration.

Policies and Models

The answer to the question "How do we get there from here?" (Francis, 1975) is (in part) that a policy is required. One implication of policy is the strategy of implementation and Francis (1975) offers a three-stage developmental model for the "institutional process which seeks to modify the attitudes, skills and behaviour of faculty members towards greater competence and effectiveness in meeting student needs, their own needs, and the needs of the institution" (p. 720).

1. The consciousness-raising stage during which current attitudes are challenged in order to induce heightened awareness.

2. The focal-awareness stage during which concentrated attention is directed to substituting new attitudes and behaviour patterns for old.

3. The subsidiary-awareness stage during which new attitudes or behaviours become firmly established and no longer require conscious attention.

This third stage corresponds to the concept of professionalism as the aim of professional development. In developing his model, Francis (1975) acknowledges the influence of Lewin (1974) and Polanyi (1964). In the UK, both Hewton (1979) and Hawkridge (1979) describe a model based on the work of Chin and Benne (1976) who suggest three broad classes of strategies for bringing about change - towards professionalism. Hewton's paraphrasing is convenient for comparison with the above model.

1. Empirical/rational strategies are concerned with ideas generated from research which are later spread by reasoned argument.

2. Normative/re-educative strategies focus upon changes in attitude which occur when people are encouraged to recognise and discuss their problems openly and to participate in finding their own solutions.

3. Power/coercive strategies relate to the use of power or authority to enforce change.

WHO NEEDS A POLICY?

1. Staff Associations

The academic profession needs a policy for the professional development of academic staff. For the purposes of this paper the academic profession has two aspects (a) within a university by virtue of employment, staff are involved in the regulation of the activities of the institution; (b) nationally, academic staff can be members of a professional organisation or staff association. It is this latter category which is implied by academic profession.

For staff associations representing the academic profession, there is a need for national (as distinct from institutional) policies of professional development which identify principles of professional performance and of career development as distinct from traditional concerns with the quantitative aspects of salary increases and parity norms. It is true that some staff associations are actively involved in contractual matters but these, too, are not directly concerned with the development of professionalism. If there is a national policy then its adoption, modification and implementation will be the prerogative of each individual institution. This prerogative is, of course, the charge of the Council (or Senate) of each university; also involved are the academic staff the majority of whom are also likely to be members of university staff associations identified with national policy.

The Canadian Association of University Teachers (CAUT) has no policy of professional development but has developed a number of related initiatives. These include the establishment of a Professional Orientation Committee which later became the Teaching Effectiveness Committee. Among the publications of these committees are a Report on Student Evaluation (CAUT, 1973) and "A Guide to the Teaching Dossier, Its Preparation and Use (CAUT, 1980). CAUT policy is also evident in the introduction of a series of CAUT monographs, the first of which was edited by Knapper (1977), entitled If Teaching is Important.... which provides a useful overview of this aspect (i.e. instructional evaluation) of faculty development (Sim, 1980). The Ontario Confederation of University Faculty Associations (OCUFA) commissioned a review of research on the evaluation of university teaching (Murray, 1980a).

In 1975, the American Association of University Professors also published a Statement on Teaching Evaluation (AAUP, 1975) which "confines itself to the teaching responsibilities of college and university professors, and is not intended as the definitive statement on reviewing and weighing all aspects of a faculty member's work" (p. 200).

The UK AUT has been less active in such matters but was party to a national agreement in 1971 with the University Authorities Panel (UAP/AUT, 1971) which considered procedure and criteria to be used in connection with the probationary period for academic staff. The agreement indicated that universities should provide "helpful and comprehensive" teacher training for probationers, encouragement to attend formal training and the guidance of a senior colleague. Training should offer "co-ordinated development throughout the probationary period". The AUT also has representatives on the Co-ordinating Committee for the Training of

University Teachers (CCTUT) set up in 1972 as a result of the Brynmor Jones working party's recommendations on future provision for the training of university teachers (Pitt, 1980). (See next section).

In Australia FAUSA (Federation of Australian University Staff Associations) also does not have a policy for the professional development of academic staff. However FAUSA did publish a statement of policy on 'Higher Education Research Units' (FAUSA, 1977) which included the following points:

(i) FAUSA supports moves to improve the resources and process of teaching, learning and research in the Australian Universities.

(ii) FAUSA accepts that Higher Education Research Units have a proper contribution to make to the improvement of teaching and learning in universities.

(vi) FAUSA opposes any move to use Higher Education Research Units in the evaluation of the teaching performance of any member of the academic staff without the consent of the member concerned and then such evaluation shall be confidential to the said member.

The University of Queensland Academic Staff Association (UQASA) has established a sub-committee "to look into acceptable ways of evaluating staff performance in their contribution towards the various goals of the University - e.g. teaching and research, and that the committee should by-pass the particular issues of 'promotion' and 'tenure review' etc." (UQASA, 1980). It is likely that the development of the committee's thinking and of subsequent discussion in the university will be greatly influenced by the report prepared by Murray (1980b) on A Comprehensive Plan for the Evaluation of Teaching at the University of Queensland.

At Griffith University the staff has been concerned about the intention of the School of Humanities to establish "operational criteria to gauge the effectiveness of faculty staff" (16 July, 1979). In response to a request for comment from the Griffith University Faculty Staff Association, FAUSA was concerned about implications for academic freedom and tenure:

> Federation policy states that procedures like the initial granting of tenure, promotion reviews and contractual responsibilities are sufficient to allow a university the necessary degree of control over its academic staff and that it would be most undesirable for a university or part thereof to adopt procedures which are designed to control those members of staff who perform their duties poorly but which have the effect of interfering with the traditional liberty of action of the great majority of staff who conscientiously and adequately carry out their obligations. (Wallis, 1979)

In another context, it is encouraging to note that the Executive Committee of the Higher Education Research and Development Society of Australasia (HERDSA) has resolved (5 May, 1980) to prepare a policy for the professional development of academic staff and to seek funds to promote such a policy through a national programme of professional development workshops.

In New Zealand, the AUT approved the recommendations of a discussion paper (Imrie, 1978) to set up a Standing Committee on Staff Development which was asked to prepare a policy statement on the professional development of academic staff (NZAUT, 1979).

It is obvious that some universities will manage professional development better than others with or without an explicit policy. If academic profession is more appropriate than academic employment as a description of performance and responsibility, is it not also obvious that staff associations should have explicit policies for the professional development of their members? Professional freedom should not be left by default to the control of individual institutional governments. A national association policy has value in its unity of common principles and aims without requiring a uniformity of practice.

2. University Councils (or Senates)

The Council will be used to refer to the body legally constituted as representing and responsible for a university. It is such a body that the NZAUT policy statement addresses when it wishes that (NZAUT, 1979):

> Universities should state clearly their policies on the professional development of academic staff. (p. 5)

Of course, a university is more than an institution, it is a collection of people (staff and students) and executive responsibility for the work of these people lies with various organisational hierarchies including the Vice-Chancellor, administrative officers, committees and conveners drawn from the academic staff. In the absence of peer determined and approved policy a member of staff may lack appreciation of the controlling mechanisms which affect professional development and career advancement. Personal autonomy is less relevant than professional integrity for staff working within the constraints of universities where what is 'feasible' is often deemed more important than that which is desirable. Some policy initiatives are worth mentioning.

Possibly the University of Strathclyde is the only university in the UK which has a professional development policy comprehensive enough to include systematic procedures for the annual review of staff performance. As such, annual review has management potential for effecting improvement by involvement of the individual (i.e. normative/re-educative strategies - (Francis, 1975).

In New Zealand, the Vice-Chancellors' Committee specifically requested an "Inter-University Conference of Higher Education Advisory Staff to consider a report from their delegates at a Conference on Pre-Service Teacher Training, held by the Department of Education during August 1978. The delegates had reported to the Vice-Chancellors' Committee

that "there had been expressions of critical and negative attitude towards the manner in which the Universities are responding, or seem to be responding, to their responsibilities as teaching institutions".

The Report (Imrie, 1979) of the Inter-University Conference to the Vice-Chancellor's Committee, recommended that it set up a standing committee on academic staff development and that it invite the universities jointly to convene a universities conference to consider issues related to academic staff development. The Vice-Chancellors' Committee subsequently decided to take no action on these recommendations.

In Canada, for example, individual institutions have policies which incorporate such statements as:

> The status of every academic faculty on a continuing appointment, other than a Full Professor or Head, is reviewed annually by a Faculty Promotions Committee and subsequently by the General Promotions Committee. (Calgary, 1978) (underline emphasis added)

> The University of Calgary Faculty Association supports the concept of such regular merit evaluations on the basis that all persons should be accountable for their performance.
> (Vanderberg, 1979) (underline emphasis added)

At Simon Fraser University, there is triennial evaluation carried out by the Chairman of a Department in consultation with the Department Tenure Committee.

It is relevant to note that the Vice-Chancellor at the University of Queensland, who had administrative responsibility for the triennial evaluation scheme at Simon Fraser, has indicated his intention of introducing evaluation of performance of academics as a way of increasing efficiency, to be undertaken every three years. He is also chairman of a working party set up by the Australian Vice-Chancellors' Committee to consider certain aspects of the Williams Committee Report (1979) and, in particular, in response to Recommendation 15.24:

> that the Australian Vice-Chancellors' Committee appoint an expert working party to formulate programmes for staff in theory and practice of teaching, curriculum development and examining, and then later consider whether satisfactory participation in such programmes should become a normal condition of tenured appointment.

This recommendation begs the questions of a policy for professional development (which might include appropriately discipline-oriented programmes) and of a policy of evaluation of academic performance for all staff. These questions are of interest to individual staff and to staff associations and apply just as much to the professional development of administrators (Millett, 1978). Scholarship demands management (Millett, 1978) and, in responding to the calls for greater accountability, staff and staff associations should move towards a greater degree of self-management (Patching, 1979).

3. Departments

Institutional policies are usually approved (and reviewed) by management boards of appointed professors (who are likely to be staff association members) and representative Standing Committees. Implementation of policy is, in most cases, delegated to deans, chairpersons and professors for executive action in the faculties, schools and departments of the institution. If such policies are predominantly of a cost-benefit nature to the exclusion of professional and personal expectations then departments need professional development policies which may sustain (even if intermittently) collective action to minimise short-term individual disadvantage for long-term benefit (Mandelbaum, 1979). It is often sociologically inevitable that short-term expediency results in long-term disadvantage.

In the subject department, policy is required to provide guidelines for course planning and moderation of assessment as well as for professional considerations of performance evaluation and career development. It is within such peer groups that a shared policy (even by its development) can help to avoid conflict between illusions of personal freedom (sometimes evident as selfishness) and the pragmatisms of professional conduct and control. Patching (1979) reminds us of the caution that Karmel (1978) offers us if a policy is based on 'co-ordination' which is frequently used as a polite word for control.

The University of Calgary Faculty Association statement quoted earlier on the evaluation of all teaching staff points to the need for some provision of training or professional development for more senior staff, not only teaching assistants and tutors. Departmental and institutional policy should require periodic review of all staff and should ponder the specific point made by Pitt (1980) about the training of university teachers in the UK:

> It is important that an opportunity for in-service training should be provided not only in the form of induction courses for newly-appointed staff, but also for staff at different levels of seniority and length of service. (p. 3)

Vice-Chancellors should note that professional development implies the involvement of <u>all</u> staff in the evaluation of performance and the maintenance of the standards of excellence traditionally associated with the work of universities.

4. Academic Staff

The individual member of the academic profession, as an employee of an academic institution, also needs a policy which provides due recognition and support, at different career stages, for professional practice and development. Unless each member of staff perceives personal commitment to department and institution policies (which are not in conflict with national association policy) it is likely that corporate effectiveness will be diminished - sometimes irreversibly for some individuals.

A policy and its implementation imply that criteria will be used to evaluate individual performance on a regular basis, instead of only when tenure and promotion decisions are made with no feedback to help improve performance; also that appropriate resources will be available when performance requires improvement. Freedom has reality only if the implications of control are perceived by the individual. Without the self-discipline of professionalism, freedom (or autonomy) can degenerate into an "idealogy of anarchy" (Cohen and March, 1974). Professionalism is more relevant to the development of the contemporary university community than self(ishly)-determined individual freedom.

Accountability (the theme of the 1979 HERDSA Conference) was considered as "external interference" (Ramsey and Howlett, 1979) and as "control" (Patching, 1979). Financial accountability is part only of academic accountability which starts with the professionalism of each academic. The university academic as teacher is accountable through scholarship to students and to subject for the dissemination of knowledge; the university academic as researcher is also accountable through scholarship to the discipline for the advancement of knowledge. A policy of professional development is needed so that individual abilities have freedom to develop without the constraints of cost-benefit conformity.

5. Students

As far as teaching is concerned students certainly support the concept of professional development for academic staff. While, for brevity, most of this section will discuss events in New Zealand it is worth noting the NUS (1969) report which contributed to the setting-up (in 1972) of the Co-ordinating Committee for the Training of University Teachers (CCTUT) in the UK. The report surveyed tertiary student opinion on teaching methods as well as examinations and made recommendations about the training of university teachers.

In their quinquennial submission to the NZ University Grants Committee, the New Zealand University Students' Association (1979) commented on the apparent lack of support from official opinion for the development of university teacher training. NZUSA stressed the need for more effective measures to be taken to improve the quality of university teaching and recommended:

- While it must always be accepted as a principle that staff development programmes should be flexible and not be rigidly imposed on teachers, the UGC should play a greater role in encouraging such programmes.

- Provision should be made in the coming quinquennium for the expansion of higher education advisory centres at the universities and such increased provision should include finance to organise and teach study skills courses for students who need this help.

In a report on difficulties experienced by students with assessment (Powell, 1980), the NZUSA Research Officer also recommends teacher training with particular reference to difficulties related to assessment. There is no doubt that NZUSA would support strongly the systematic implementation of policies for the professional development of academic staff in tertiary institutions. NZUSA has always had close ties with the Australian Union of Students and there is no reason to believe that the situation is different in Australia or that it has improved significantly in the UK since the NUS (1969) report.

As members (albeit temporary like Australian tutors and New Zealand junior lecturers) of the university community, students would benefit greatly from in-service programmes for the professional development of academic staff. There is no doubt, too, that students should be involved in the development of appropriate policies and programmes.

CONCLUDING COMMENTS

If academic staff have any perception of themselves as members of an academic profession then they should accept responsibility for the control of the practice of the profession. Accordingly staff associations have a duty to develop and promote policies which provide for and maintain appropriate standards of performance and conditions of employment. Self-regulation must be a better alternative than external intervention and control.

The implementation of any national policy will depend on the membership in each institution according to its needs and perceptions. The management of professional development policy in a university will then be dependent on departmental management and the involvement of all staff. Since such management is a responsibility delegated to professors and heads of departments, it is evident that these 'managers' share responsibility with each member of staff for individual career or professional development.

Reference has been made to the New Zealand AUT policy for the Professional Development of Academic Staff in Universities. The implementation of such a national policy will require an institutional policy to include the following provisions:

(1) periodic review of the performance (teaching, research, administration etc.) of all academic staff for professional development as a management function of departments/schools;

(2) systematic student evaluation of all courses;

(3) systematic peer appraisal of assessment procedures and outcomes of all courses;

(4) appointment and probation procedures which require individual programmes of professional development by study, practice and discussion managed by Departments, Schools or Faculties;

(5) promotion procedures which are developed in conjunction with representatives of staff and of staff associations, and which are evaluated;

(6) educational planning and management procedures which incorporate the experience of academic committees, staff associations and the services of higher education research and development units;

(7) institutional evaluation of innovation and change together with periodic review of the work of departments/schools and of the work of major standing committees which have responsibility for aspects of professional development.

In conclusion this paper affirms the need for policies which will foster professional development of academic staff and which will provide for the corporate control of individual and collective freedoms, by members of the academic profession.

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Self appraisal in professional development of tertiary teachers

D. Boud

The aim of the workshop will be to explore ways in which tertiary teachers can focus on their own performance in given areas and make their own appraisals of their own needs for professional development. A particular approach to this activity will be described and participants will be invited to engage in a condensed exercise to examine their own performance in an area to be agreed at the time. It is anticipated that the major part of the time will be spent on the experiential activity, but there will be opportunities to discuss wider issues and the contexts in which such exercises can be used.

Numbers will be limited to ensure maximum interaction. Participants should be prepared to reflect critically on their own skills and be prepared to discuss these with others in a supportive context.

This paper presents the theoretical input to the workshop, 'Self-appraisal in professional development for tertiary teachers'. Participants took part in a condensed version of the stages of self-appraisal to illustrate the process.

INTRODUCTION

The need for tertiary teachers to attend to their own professional development is apparent in 1980 as never before. In Australia the Williams Committee on Education and Training has recommended courses on teaching for new entrants to the academic profession and the Australian Vice-Chancellors' Committee has set up a Working Party on Staff Development which is currently sitting. In New Zealand, the Association of University Teachers has just adopted a policy for the professional development of academic staff. There is much concern about these matters at the national level after many years of neglect and there is the danger that national initiatives might outpace the capacity for response on the part of individual tertiary teachers, their institutions and the bodies established within these institutions to assist staff in the improvement of teaching.

It is necessary at this time to consider ways in which the development of academics in all aspects of their professional role might best be facilitated. There are many approaches to this, all of which can be found in one form or another in Australasian institutions: courses and workshops, individual consultations, student evaluation of teaching and various course team approaches to course design and development. One of the characteristics of these approaches is that they usually centre on a problem or specific issue in teaching and learning: the quality of a lecture course, a new teaching method or a particular difficulty encountered. They do not focus directly on the individual and his or her own needs.

Perhaps, in the past, it would have been regarded as too threatening or challenging to face the staff member directly with the notion of self-improvement but I believe that this is no longer the case and that if we are to effectively address the large problems in the improvement of tertiary teaching we need to place the individual in the centre of our endeavours.

By placing the individual at the focus of attention in professional development I am not suggesting that others should operate on him or her, but that strategies for development should relate to persons and their concerns rather than abstract notions such as methods or subjects.

It is necessary that we start from the concerns and perspectives of individual tertiary teachers and provide means whereby the individual can reflect upon and assess his or her own teaching and other activities. Self-appraisal is used as the guiding concept as it indicates the starting point for one kind of approach to professional development. In this approach professional development is initiated through the critical study and evaluation of current practices and current goals which then leads to new practices and the re-appraisal of goals. This approach is distinct from that which starts from innovations and new course developments and introduces professional development activities as a means of addressing new problems on a group or individual basis. Both strategies have their place and the choice of one or the other will be dependent upon local factors, particularly the ethos of the institution and the prior experience of the staff. It is the aim of this paper to describe one strategy for self-appraisal which offers the possibility of addressing the problem which we have identified above.

This approach to self-appraisal is conducted with groups of peers: staff who form a support group for each other's professional development and growth (Kirschenbaum and Glaser, 1978). It can be applied to all aspects of professional development, not just the teaching role.

The idea of self-appraisal should be contrasted with that of appraisal by others. At present, the academic is responsible for his or her own teaching within a very broad framework and is responsible for the planning and conduct of scholastic activities almost solely. It is essential therefore for any approach to professional development with academic staff to be rooted in this tradition of autonomy and self-determination and to acknowledge the large degree of responsibility which is vested in the staff member.

Self-appraisal does not imply that all assessments are made in isolation from others. In a self-appraisal process it is appropriate and important that the individual considers the various sources of both criteria for appraisal and observations on his or her own performance. The 'self' component of self-appraisal refers to the responsibility of the individual not the sources of input alone: individuals are responsible for using information from themselves and from others and for soliciting those inputs which are relevant and useful in the task which they have set themselves.

A PROCESS FOR SELF-APPRAISAL

Many approaches to self and peer assessment in different situations have been proposed (Boud 1980), but few are relevant for tertiary teachers. Most use inappropriate quantification or require a fairly sophisticated appreciation of educational issues (Elliot 1978). One approach which has been used with many different professional groups on a variety of topics in teaching and professional practice is that developed by Heron, Kilty and others in the Human Potential Research Project at the University of Surrey. They provide a framework for a process which can take place in a workshop setting with a small group of staff. The framework is content-free: the participants provide the topics on which they will work and the role of the group leader is to enable the group to address those concerns which the members of the group decide to address. (This does not preclude the issues being suggested in advance by other persons but it is desirable for the participants to agree amongst themselves on the matters on which they will focus.)

The stages outlined below describe one version of the process discussed in the HERDSA workshop. It is a variation of the general model by Kilty (1978) and Heron (1977a, 1977b). Although the process is described in terms of fifteen stages in practice many of these overlap and the order of some of them may be varied with discretion. In some places a separate stage has been indicated in order to give emphasis to a point which is important for the conduct of the session rather than for the model itself.

1. Initiation of self-appraisal group.

There are many ways in which a group can be formed. In a climate in which professional development is a normal and accepted part of regular institutional activity a self-appraisal group might be scheduled as part of a workshop programme. However, in the current situation in Australian tertiary institutions the response to this is likely to be small and it would be necessary to incorporate this activity as an agreed part of a programme of educational development in a particular department or faculty or by providing a focus which did not initially emphasise the 'appraisal' theme. What is essential is that the participants voluntarily, after due consideration, enter into the activity.

The group should be small, probably not more than 8-10 in size and it should meet in an informal setting: probably not a usual teaching area. An initial meeting might take place using a condensed version of the stages which follow as a general orientation to the idea of self-appraisal. If the full version of the process is used two half day periods should be set aside separated in time sufficient for the participants to monitor their activities in a real situation in the interim.

2. Selection of an area of practice to appraise.

Areas or topics can be elicited from the group or can be provided in advance as the focus of activity. The group might decide to agree on a common area on which to work or individuals may select different ones. It is probably simpler in the first instance if a common area is considered.

3. Agree on criteria of competent practice.

The question which must be addressed here is 'how would one recognise competent practice in this area?' What standards should apply? What would distinguish good from bad practice? For example, if one were considering criteria for competent lecturing one might list: Can the lecturer be heard by all students? Are all students attending to the lecturer? Is the structure of the lecture clear to the students? One can distinguish minimal criteria from criteria for excellence. Minimal criteria, such as audibility, would be applicable to all practitioners, but criteria concerned with demanding aims, such as stimulation of independent work, might not apply to all situations equally. It would be expected that all lecturers would be able to meet the minimal criteria.

One way of producing a list of criteria for a common area of practice would be by brainstorming: each person would contribute to a central list which would not be evaluated until all contributions were forthcoming. The list of criteria to be used would then be extracted by consensus from the full list.

The stage of generating criteria is one of the most difficult steps. Most people have difficulty with criteriological thinking and it is a demanding task to obtain a usable list. In some situations criteria drawn up by others might be critically evaluated and used.

4. Devise methods to evaluate quality of practice.

The aim here is to devise simple ways of checking to see if criteria have been met in individual cases. Methods should be easy to use and within the scope of the participants. It would be no use suggesting complicated rating scales if special training were to be required for their use. The aim is not to produce measures which would stand up to scrutiny in an educational research forum, but to devise methods which have credibility to the participants. For example, in one workshop a lecturer chose to evaluate his lecturing by counting the number of students who were reading papers or who were otherwise distracted at the midpoint of a lecture. In another workshop, a teacher evaluating his accessibility to students kept a simple diary of what time he said he was available, whether he was available or not at those times, the number of students who consulted him and the frequency of consultation.

5. Informal/private self appraisal.

Each individual in the group makes a personal assessment of his or her performance with respect to the criteria chosen. This takes the form of an 'armchair' appraisal in which the person reflects upon the relevant activities and the possibility of realistically applying the criteria and methods. The aim of this stage is to begin the process of self-appraisal and to begin checking to see if the criteria adopted and the methods chosen can be used in practice. If difficulties are foreseen then the process returns to stage 2. This stage would conclude the first meeting.

6. Self monitoring in daily practice.

During the time between the first and second meetings each person applies

the methods to selected aspects of their regular practice: they monitor their teaching or other activities using the methods which they have defined. They keep a record of both their findings and their responses to using the methods.

7. Revise practice in the light of self-appraisal.

Monitoring of activities will inevitably raise awareness about certain problems and issues. As the exercise is a development exercise and not a formal research project it is appropriate for changes to be made as soon as the need for them and their nature are clearly identified. If this occurs prior to the next meeting some attempt should be made to monitor the changes to see if they do have the desired effect.

8. Report on application of self-monitoring process and procedures adopted.

The group reconvenes to examine the experience of self-monitoring in daily practice. The purpose of this stage is to examine the procedures used and not to report directly on the outcomes or findings. Each person reports of their experience of attempting to monitor their regular activities.

The level of disclosure of outcomes and findings is dependent on the level of trust and cooperation in the group. The following stages may be included if there is a high degree of mutual confidence and/or an experienced group facilitator present to ensure that sensitivities are respected.

9. Disclose self-appraisal.

Including effects of self-monitoring procedures on performance. Each person who wishes to describes his or her self-appraisal including the criteria adopted and the methods used to produce the evidence. At this point no comments are sought from the rest of the group.

10. Receive clarificatory questions.

The person who has disclosed his or her self-appraisal may then choose to receive questions and comments from the rest of the group. The simplest and least challenging type of questions are those intended to clarify and elaborate on what is intended. Clarificatory questions would be of the type, 'Can you explain what you did.... when....?' or 'How did you manage to observe....?'

11. Receive critical or probing questions...amplified doubts...negative comments...devil's advocature.

The person presenting the self-appraisal may then elect to receive any comments from others which may help them make a realistic judgement of themselves. He or she has the option of receiving feedback from the other group members of any or all of the kinds described. The need for a facilitator to draw the attention of the person and the group to the options available and to guard against the person receiving feedback other than that which has been sought is clearest at this stage. It is essential that no one is pressured into revealing information about

themselves which they do not wish to disclose or are presented with comments and opinions from others that have not been invited. The entire process is predicated on the notion of self-assessment and this means that each person is responsible for what they do and say and do not have to be subjected to the unsolicited views of others.

It is usually helpful if the feedback from others at this stage is deliberately subjectified. That is, comments and observations are of the type, 'My feeling about what you have said is....', or 'My reaction to....was....', rather than the spurious objectification of: 'You are....', or 'We can all see that....', or 'obviously you....', which translates personal opinion into apparent matters of fact.

12. Receive positive impressions and appreciations.

This stage is required if the person making the appraisal elected to receive comments from others. On occasions comments can be critical or negative in nature, and if this is the case there must be an explicit opportunity for the person to receive positive and appreciative responses. Not only can a predominantly negative feedback session be unhelpful to the recipient, but it can also hinder others who may then be more inhibited in their own later presentations.

13. Revise criteria and methods.

Whether or not the optional stages 9 to 12 have been included in the session, the group can move on to revising the criteria and methods of assessment in the light of the discussion of the monitoring of practice. If the group wishes to continue it may decide to repeat the cycle of stages from stages 2, 3 or 4 as appropriate and continue to meet on a regular basis until the needs of the members are met. It may also branch out from a strictly appraisal function to encompass activities designed to develop the skills and knowledge of the participants in the areas identified as being of common interest.

14. Make action plans.

After the group meeting individuals make personal action plans with respect to changes in practice they wish to make.

15. Self and peer accreditation.

In some circumstances it may be appropriate for the group to end the self-appraisal activities by individuals accrediting themselves in various areas of their performance. This is described in detail in Heron 1977b. The aim of this final activity is for each person to formally announce the level of competence in a given area which they possess and to formally indicate those areas in which they are and are not able to operate competently after having the input of their peers. In formal educational institutions self and peer accreditation is less likely to occur than in other bodies and it is included here for the sake of completeness.

FINAL COMMENT

If professions are to maintain their traditional autonomy and freedom from influence by governments it will become increasingly necessary for them to be able to indicate publically that they are engaged in their own internal schemes of accountability and self-monitoring. This applies as much to the academic profession as it does to medicine, law and others. Whatever may be the current reaction of academics to demonstrating their competence in teaching and other matters it is clear that they will have to establish their own mechanisms for self-appraisal if they are not to have external appraisal thrust upon them. There are many ways of establishing schemes of self and peer appraisal and this paper has only described one of them. It is offered here as one of the beginnings of a wider debate which is needed on the professional development of academic staff.

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Explaining and lecturing: Control, direction and freedom

G. Brown

Lecturing is just one of many methods of teaching. However, whereas newer methods, such as games, tape-slide programmes or computer-assisted learning, are planned and evaluated systematically, lecture methods are rarely subjected to such rigorous planning and analysis. This lack of attention to the lecture accounts, in part, for its apparent relative ineffectiveness as a teaching method.

It is true that lectures are not usually as effective as small-group methods for solving complex problems or changing attitudes. Nor are they as effective as laboratory classes for developing psychomotor skills. However, lectures are at least as effective as other methods of teaching for outlining a field of knowledge, for enunciating and applying general principles and for generating understanding. Perhaps most important of all, lectures can be used for generating enthusiasm and interest in a subject. For if a student is motivated by a lecturer and provided with guidelines, then the student will become self-motivated and goal-directed.

What some researchers do not point out is that lecturing is an economical way of teaching which has been in use for some 2,500 years. Rather than bemoaning the deficiencies of lectures one should seek ways of improving their effectiveness.

One way of improving the effectiveness of lectures is to introduce lecturers and students to the processes of teaching and learning that go on in lectures. Associated with these processes are various skills and methods of lecturing, strategies for improving the preparation and structure of lectures and ways of helping students learn from lectures.

The workshop entitled "Explaining and Lecturing" consisted of presentations, activities and analyses of brief excerpts of explanations and lectures.

Staff development workshops: Freedom and control in theory and practice

A.J. Dare

The views in the paper arise from experience in workshops for academic staff at RMIT since 1973 and from personal consultative work with staff. The notions of "espoused theory" and "theory in practice" proposed by Argyris and Schon are outlined and the view is put that teachers and trainers who adopt humanistic models are likely to experience difficulties through incongruence between the two. The humanistic approach is reviewed, referring to Carl Rogers and his notions of "freedom to learn", George Kelly and his theory of personal constructs, and two practitioners, Malcolm Knowles (andragogy and contracting) and Kolb (experiential learning and learning climates). The conventional role of the academic is analysed and the human qualities lying behind the facade are asserted. The approaches and procedure taken in RMIT workshops to promote humanistic values are briefly described. It is asserted that teachers and trainers adopting the humanistic approach will often experience tension as a result of teacher/participant and teacher/teacher conflicts and miscommunications. Provisions made by the Australian Institute of Human Relations to acknowledge inter-trainer conflicts are described and it is proposed that teachers and trainers adopting humanistic approaches will be limited as far as putting their espoused theory into practice unless they make similar provisions for their own growth.

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1. INTRODUCTION

In this paper I aim to share some ideas about my involvement with staff development programmes for academic staff at the Royal Melbourne Institute of Technology over the past seven years and some of the doubts and tensions which I have experienced. In reflecting on the nature of the relationship which I seek to promote between myself and the participants in programmes I am thinking particularly of the Teaching Orientation Workshop, a four-day programme for recently-appointed staff to the Institute which we now run on two occasions each year; 25 such workshops have been given by us since 1972. The workshop is described in Dare and Henry (1979).

Since 1972 I have been conscious of moving from a didactic, technically orientated approach towards a humanistic or person-centred approach; the latter approach could also be described as an attempt to build an adult learning relationship. The impetus of this move came from my involvement with human relationships workshops, from discussions with colleagues and from reading the works of Rogers (1969), Kolb (1974 and 1975) and Knowles (1970 and 1975) as outlined later. In the context of this paper, I am taking freedom to mean the absence of manipulation and dependency and the positive valuing of the individuality of others. I see control as the attempt to produce predictable outcomes in others reducing the risk of change and uncertainty.

A person-centred or adult learning relationship is to me characterized by freedom; yet I am also very conscious of the drive for control which arises from within me and is also implied by cues coming from the organisation. The tension between freedom and control is something which I am conscious of and is the subject of this paper.

2. MODELS OF FREEDOM AND CONTROL

Recently I was alerted to the work of Argyris and Schon (1974) who are concerned about the development of professional effectiveness. Their work arose from an American programme in 1971 to train educational administrators who would enter schools and begin programmes of reform. Their conceptualisation of how professional effectiveness might be characterized and how it might be achieved struck me as highly significant: here it seemed to me was a model which encompassed humanistic notions in a way which helped systematize an otherwise amorphous collection of ideas; they also offered techniques for achieving change.

Argyris and Schon postulate two operational models or "world views". The first model I is a conventional "hard nosed" view of life which we acquire through socialisation rather than experiment or choice. Model I makes a number of assumptions about the world and how to operate in it: it is a win/lose world; rational behaviour is the most effective; public testing of assumptions is intolerably risky and other people behave according to these model I assumptions. The following precepts would be implied by Model I assumptions:

1. Define goals and try to achieve them (unilaterally)
2. Maximise winning and minimise losing
3. Minimise generating or expressing negative feelings
4. Be rational

Model I thinking is self-sealing; that is, it helps create a world in which at least some of the assumptions appear to hold true. For example, the drive to win will produce winners and losers; refusal to test assumptions will tend to perpetuate the fantasy that it would be intolerably risky to do so and so on. As Argyris and Schon put it, model I thinking cuts a person off from discovering the possibility of a behavioural world in which model I assumptions did not hold true.

Model II is not based on assumptions about the nature of the world; it is rather a process for testing out reality and for choosing and responding. The governing variables of model II are:

1. Maximise valid information (both factual and interpersonal)
2. Maximise free and informed choice
3. Maximise internal commitment to decisions made

The implications of model II are very wide ranging and include such concepts as individual responsibility, sharing, feedback and responding - the key concepts of the humanistic or person-centred world view. I saw in model II a way of operating which I would like to adopt and a way in fact which I had already chosen. At the same time, when I reflected on incidents during workshops where I had been dissatisfied with my performance as leader I realised that I had in many cases adopted model I approaches. Hence I found the conceptualisation by Argyris and Schon useful: model I implies manipulation and control; model II implies sharing and freedom.

3. ESPOUSED THEORIES AND THEORIES-IN-USE

In their work with professionals, Argyris and Schon make use of case studies generated by the participants. Professionals describe in detail incidents in which they felt dissatisfied with their level of professionalism, these cases are then analysed in detail in a group situation, each case taking perhaps a number of meetings. Argyris and Schon found that almost all the professionals who participated, espoused model II values; yet when their case studies were analysed, it was clear that their theories-in-use, that is, the actual methods arose from model I assumptions. This incongruence between espoused theory and theory-in-use is the basis for their process of developing professional effectiveness.

When I reflected upon this concept I realised that I had been experiencing tension from this kind of incongruence; and I am assuming that others who espouse model II type training and development philosophies will have also experienced this tension. It seems to me to be inevitable that this tension should arise because of the likely strength of model I type assumptions and behaviours and the impossibility of achieving a perfect state of grace in terms of model II values. One question which arises is how to handle the tension in a productive way; another is to what extent model II values can be promoted in an academic institution by way of staff development programmes.

4. WHERE DOES THE ESPOUSED THEORY COME FROM?

Before dealing with those questions, I should like to review the sources of the espoused theory of those like myself, who adopt a humanistic or person-centred approach to staff development. Perhaps the most influential source was Carl Rogers who first began commenting on education about 1954. In 1969 his collection of essays, Freedom to Learn, appeared and had a significant impact on many teachers. The implications of what Rogers said were immense; re-reading some passages I am struck with the vastness of the tasks he suggests, the tasks are exciting and at the same time daunting, for example:

> I see the facilitation of learning as the aim of education, the way in which we might develop the learning man, the way in which we can learn to live as individuals in process. I see the facilitation of learning as the function which may hold constructive, tentative, changing, process answers to some of the deepest perplexities which beset man today. (p.105)

A change in the nature of education as suggested here, would still constitute a revolution which would challenge most of the dearest and untested assumptions of our institutions, our colleagues and ourselves. Rogers described the attitudes of the teacher who could facilitate learning:

> Perhaps the most basic of these essential attitudes is realness or genuineness. When the facilitator is a real person, being what he is, entering into a relationship with a learner without presenting a front or a facade, he is much more likely to be effective... it means he comes into a direct personal encounter with the learner, meeting him on a person-to-person basis. It means that he is <u>being</u> himself, not denying himself. (p.106)

Again, the challenge to us to be real and authentic is exciting; he challenges us to be alive. And it is also daunting; as a friend of mine who has been active in human relations training for many years said, he is constantly amazed by his ability and ingenuity in inventing new ways of avoiding being present and real.

To summarize, I believe that those of us who espouse humanistic values and try to apply them in our own lives and in our professional activities have chosen a way which is both laden with promise and fraught with difficulty.

5. WHERE DO ESPOUSED PRACTICES COME FROM?

The first source of practice comes from feedback from our own experience. Over the years it has become clear to me that when we do succeed in operating according to model II processes our workshops are more successful, participants appear to grow and gain; we feel pleasure and satisfaction from the style of involvement and the quality of the relationship we build over the four days between us and the participants. It might be thought that the conventional academic setting would be an unpromising one in which to promote sharing, openness, valuing of feelings and personal goal-setting but that does not fit in with our experience. We have found that staff do respond to model II type processes; at the same time I experience a "freeing up" and can more easily make available the resources that I have to offer about the development of teaching and learning.

The second source of practice comprises writers such as Malcolm Knowles who has devised a system of contracting which offers an administrative system for the adoption of model II values within a formal course structure. (Knowles 1975) Knowles' system gives the responsibility for learning and evaluation to the learner while retaining for the academic institution the functions of objective-setting and standards, while keeping all issues open for negotiation in a caring, supportive environment.

David Kolb's notions of experiential learning provide a conceptual framework for the devising of training and development programmes in which the teacher or trainer is, again, a facilitator and organiser rather than an authority and dispenser. (Kolb 1975)

It appears to me that there is scarcely an area of teaching and training which has not been influenced by the humanistic, person-centred or adult learning movement; it must therefore be that the incongruence between espoused theories and theories-in-use is widespread.

6. WHY DO WE WISH TO CONTROL?

I believe that the drive to control ourselves and others is a very powerful drive. My value system would like to think that this drive is not innate but a result of socialisation. If that is not so we are really engaged in a futile struggle in attempting to manage the transition from model I to model II.

If, in a staff development programme, we manage with model II processes, we would work to establish a number of norms, including the following: that people would take responsibility for their own learning, accessing the resources that were available; that we would give clear and accurate feedback to one another and not unilaterally "protect" ourselves or others, that feelings, including negative feelings, would be accepted as legitimate and valuable data and so on. We, as programme leaders, would not take responsibility for the success of each participant; therefore, we would accept the risk of perceived failure, dissatisfaction or even disengagement from the workshop. We would take to heart the implications of the maxim "You can't be where you're not at."

As I list down these implications I experience two things: I realise that at times in our workshops we really have operated with model II processes; I also experience apprehension at the risks. In order to reduce the risks we have adopted many model I procedures, such as attempting to engineer success for participants so that they will speak well of the programme rather than denigrating it in front of their colleagues; reducing demands on participants so that they will not feel inclined to leave the workshop; smooth over conflicts and hostilities so as to prevent "scenes"; withhold feedback so as to protect a participant's feelings, and so on. It is in the nature of model I behaviour that it is self-sealing; hence I have no idea whether those behaviours actually achieved their objectives. I assume however, that these behaviours will be familiar to others who work in organisations and who are involved with staff development programmes.

If we really believe in our model II world view we must accept that the risks involved will remain fantasies until tested, that is, the risks may be real enough but until we move to model II processes to deal with them we will never know. In order to take such risks I believe that we, as leaders, need support in our own personal and professional development. This is to me a key issue which we in the Education Unit may have acknowledged in our espoused theory but have not made part of our practice.

7. DEALING WITH FREEDOM/CONTROL TENSIONS

If I am attempting to facilitate the growth of others I believe I must be prepared to risk growth myself, not necessarily during the workshops but at least concurrently with them. This notion is quite different from that of the expert who has completed his training and now seeks to pass on his learning to others. We have found that, by and large, staff in our Teaching Orientation Workshops are prepared to accept that there are no established rules and reliable techniques in teaching and that they need to discover within themselves and in their relationships with others, a teaching style which works for them. The role of the workshop leader then becomes one of sharing his experience, suggesting possibilities, encouraging participants and providing resources.

During our workshops the emotional level is often quite high. Many participants are apprehensive about starting teaching; often they will face full teaching loads in the following week. They are often anxious about the experiential exercises of microteaching sessions which form a major part of the workshop. As leaders, we are often anxious about how the workshop will go, whether we will be able to satisfy the needs of this particular group, whether we are adequately prepared and whether all our arrangements are settled. During the course of the workshop there may be tension between participants, between a leader and a participant or between two leaders. I think it would be true to say that we tend to try to avoid tensions of this kind and hence adopt model I behaviour, rather than using such tensions as opportunities for additional learning, as in model II behaviour. Since the aim of the workshop is to provide an orientation to teaching, both in general terms and at RMIT, rather than to provide opportunities for personal development, perhaps we are justified in avoiding confronting tensions and working through them. At the same time, this constitutes a denial of reality. Furthermore, I have noticed that when I have a strong desire to avoid something I am often denying myself the opportunity to risk and learn.

The practice of the Australian Institute of Human Relations (Victorian Branch) provides one possible way of dealing with emotional data which are generated during a workshop. When the Institute conducts human relations groups for the public, it provides for the trainers a concurrent trainer continuation group led by a staff trainer. The trainer continuation group will commence before the start of the public groups, continue at intervals while the groups are current, and provides an "unwinding" session after the conclusion. The trainer continuation group gives the trainers themselves the ooportunity to pursue their own personal development, to deal with emotional issues which have arisen between them and the participants in the groups and to deal with inter-leader tensions. This arrangement acknowledges that trainers are themselves people engaged in their own personal development. It also reduces the likelihood of the trainers taking time during the public group for their own development.

The time may have come at the Education Unit when we could bring our theory-in-use more into line with our espoused theory, and make more provision for our own on-going development, especially during those periods when most of our programmes for MIT staff are concentrated. We too might be able to provide for some form of trainer continuation programme. This might take the form of a consultant which could work with Unit staff for a few hours before, during and after each programme block. We might also take less responsibility for the outcome of our programmes and take more to heart our espoused theory that learning is the personal responsibility of each participant. Perhaps we could accept that in seeking to establish a learning environment rich in resources and supportive enough to encourage people to take risks, we have offered enough.

In this paper I have attempted to share some of the concerns I have about humanistic or person-centred approaches to staff development programmes; I am interested to know whether others in the field have similar concerns and if so, how they have dealt with them.

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Professional development of academic staff — A policy-making workshop

B.W. Imrie & H.G. Murray

The freedom to control professional development of academic staff depends on policies which work. What are the principles of such policies: How do we ensure that such policies work?

The aims of the workshop are:

(a) to scrutinise a draft policy for the Professional Development of Academic Staff in Universities, proposed by the New Zealand Association of Academic Teachers

(b) to identify the basic principles of such a national policy

(c) on the basis of these principles, to identify the basic principles and provisions of an institutional policy.

PROCEDURE

When participants enrolled for the Workshop, they received a copy of the Workshop File containing the seven reference documents listed in the Appendix of this paper. This list was annotated for guidance of preliminary scanning of the documents.

(1) The first session (Sunday, 4 May, 2.00 - 3.00 p.m.) consisted of a brief introduction followed by group work. According to discipline, three groups were formed - Professional, Humanities, and Science. Respective group leaders were Rod Wellard (Lincoln Institute), Jackie Lublin (NSW Institute of Technology), and David Boud (University of New South Wales).

(2) The first thirty minutes of the second session (Tuesday, 6 May, 9.00 - 10.30 a.m.) provided each group with opportunity to consider the statements of the other groups and to reconsider their own statements before coming together for the final large group debate.

OUTCOMES

The Workshop groups were in general agreement about the need for policies so that professional development could be implemented in a comprehensive and systematic manner. Policies at the national level would certainly provide a basis if not an impetus for the development of institutional policies.

There was approval of the initiative taken by the NZAUT in preparing a policy for the professional development of academic staff in universities. Some comment is made later about points of omission and

of emphasis, but the Workshop participants were also interested in those documents of the Workshop (Papers A and C) which provided the context of the NZAUT policy. The other documents presented supplementary information about concepts of professional development and the crucial implementation issues of evaluation of staff performance and the role of specialist higher education units.

The experience of the discipline-based Workshop groups represented a model of the consultation procedures required for both policy development and implementation to be acceptable to the staff of particular insitutions. In effect, the processes of consultation and discussion of policy issues are part of professional development.

SOME POINTS OF EMPHASIS

The Professional Group stressed the importance of institutional policy being based on specific statements of principle in relation to:

(1) Selection of professional staff - balanced consideration of all major components of appointments, e.g., where the job has a major teaching component, then evidence of teaching experience/skills or a willingness to participate in teacher training.

(2) Training and development - there is a basic institutional responsibility to provide adequate opportunities for teacher training (or other as appropriate) and encouragement to undertake such training.

(3) Institutional responsibility - reward systems should be established in such a way as to encourage appropriate professional development activity.

However, individual staff have professional responsibility to maintain knowledge and skills and to evaluate their activities as part of an ongoing process of professional self-improvement.

All these points were approved by the Science Group and by the Humanities Group - particularly the implications of an appropriate balance and sharing of institutional and individual responsibility.

The Humanities Group also emphasised the importance of obtaining the support of staff associations for a policy of professional development of academic staff. In discussion, the point was made that staff consultation was essential, since not all staff were members of staff associations. Also discussed were the questions, "Who should promote such policies?" and "What are the power blocks which prevent apparently rational and reasonable policies from being implemented?" The Humanities Group recommended systematic review of courses and of staff responsible for the courses.

In addition, the Science Group made the point that policies for professional development should apply to all staff (including Vice-Chancellors and Principals). Professional development programmes should cover the entire probationary period and should be more than a

token introduction lasting a few days. Further, schemes should be developed to enable staff and institutions to monitor the continuing professional development of academic staff throughout their careers.

With reference to National Policy, the following points were made:

(1) The Tertiary Education Commission (TEC) should support the principle of professional development in its widest sense.

(2) The TEC should provide earmarked funds to foster special projects for both professional development and its evaluation.

(NOTE: Later that day (Tuesday, 6 May) the HERDSA Executive Committee resolved to prepare a policy for professional development and to seek funds from the TEC to prepare a national programme of workshops for the professional development of academic staff.)

IN RETROSPECT

The Workshop provided a valuable critique of the NZAUT policy and, through discussion, raised important points for consideration by staff of Australian tertiary institutions. Ideally, policies should be a corporate responsibility avoiding the implications of being imposed by one group upon another. However, a policy has to be initiated by some group or other. The advantage of a national policy (FAUSA, HERDSA or Australian Vice-Chancellors' Committee, etc.) is that it can be used as an external reference to be adapted to the particular variations of staff opinion in different institutions. If professional development were abbreviated to 'prod', we would hope that policies would ensure the 'right direction'!

The NZAUT policy has been adopted in the form presented in the Appendix. Not all academic staff in New Zealand universities consider themselves to be professional teachers, but the professional development policy of their professional association will enable their representatives to seek improvement in conditions of employment nationally and institutionally. It is now incumbent on the membership, particularly those who have major administrative responsibilities, to implement the principles of professional development.

WORKSHOP FILE - CONTENTS

A. FREEDOM AND CONTROL IN HIGHER EDUCATION - WHO NEEDS A POLICY? Bradford W. Imrie. Sixth HERDSA Conference, Canberra, 1980

(This paper considers principles and practices of professional development with reference to experiences in some other countries, and discusses the need for policies of professional development. An appendix gives background to development of NZAUT policy - Document B)

B. AN AUT POLICY FOR THE PROFESSIONAL DEVELOPMENT OF ACADEMIC STAFF IN UNIVERSITIES. Bulletin of the Association of University Teachers of New Zealand, No. 56, 1979. pp. 4-5.

C. UNIVERSITY TEACHING AS A PROFESSION: IMPLICATION FOR STAFF DEVELOPMENT AND PERFORMANCE. Bradford W. Imrie.

(A discussion paper prepared for the NZAUT which resulted in the establishment of a Standing Committee on Staff Development charged with drafting a policy statement)

D. SOME FIRST PRINCIPLES FOR THE INVOLVEMENT OF HIGHER EDUCATION RESEARCH AND DEVELOPMENT UNITS IN IMPLEMENTATION OF POLICY FOR THE PROFESSIONAL DEVELOPMENT OF ACADEMIC STAFF. William C. Hall and Robert G. Cope, 1979. Unpublished.

(Abridged version under title "Research and development units ignored" in The Australian Higher Education Supplement, No. 16, 25 June 1980, p. 10.

E. STUDENT EVALUATION OF TEACHING AND ITS USE FOR DECISIONS REGARDING TENURE AND PROMOTION AT THE UNIVERSITY OF WESTERN ONTARIO. Harry G. Murray. TEDI Newsletter, No. 5, November 1979. Tertiary Education Institute, University of Queensland.

(Student evaluation of teaching has been used extensively in universities in Canada and the USA. This paper describes experiences of student evaluation in a Canadian university and comments on deficiencies for faculty development)

F. A COMPREHENSIVE PLAN FOR THE EVALUATION OF TEACHING AT THE UNIVERSITY OF QUEENSLAND. Harry G. Murray. TEDI Report, April 1980. Tertiary Education Institute, University of Queensland.

(This paper sets out to overcome the deficiencies of evaluation policies which rely on single modes of performance appraisal. The plan described has considerable significance for any policy of professional development.)

G. PROFESSIONAL DEVELOPMENT OF ACADEMIC STAFF. Ernest Roe. TEDI Newsletter, No. 3, July 1979. Tertiary Education Institute, University of Queensland.

(Reflections on the experience of an international working conference on the training and professional development of academic staff - also a reminder of Recommendation R5.24 of the Williams Report.)

APPENDIX

AN AUT POLICY FOR THE PROFESSIONAL DEVELOPMENT OF ACADEMIC STAFF IN UNIVERSITIES

On 6 November the Executive provisionally adopted the statement on the professional development of academic staff printed below. Subject to notified amendments, the statement will be accepted as AUT policy at the May 1980 Executive Meeting. The statement has been published in the Bulletin so that all AUT members have the opportunity to comment on it. Proposed amendments should be sent to branch executives.

INTRODUCTION

Academic staff in universities value the principle of academic freedom, with all the diversity of interests and style that follow from it. They also value the notion of universities being autonomous institutions that are free, within broad financial and legal constraints, to pursue their objectives in such ways as they choose. In recent years, however, a variety of factors have combined to make various sections of society feel justified in demanding a greater degree of accountability from universities and in expecting the highest standards of professional competence from academic staff members.

In responding to this scrutiny, and as a matter of its own judgement, the Association would wish universities and its own members to accept responsibility for ensuring the development and maintenance of the highest possible professional standards in academics. The Association would oppose the imposition of an externally applied registration system for university academics.

This document has two main objectives:

(a) To outline the Association's views on what constitutes the various areas of professional responsibility of its academic members;

(b) To state the Association's policy on the professional development of academic staff in universities.

In the main, the policy comprises broad guidelines for branches and individual members to interpret and seek to implement in ways which are appropriate to their circumstances.

ACADEMICS' AREAS OF PROFESSIONAL RESPONSIBILITY

Introduction

The Association considers its academic members to have diverse professional roles, the chief of which are teaching, research and administration. Consultancy work with outside bodies also constitutes a legitimate and important area of professional activity. The Association recognises that during an academic career there will be variation in the extent to which an individual is committed to these various professional roles.

Teaching

In carrying out the teaching role, the Association expects that its members will achieve and maintain levels of scholarship consistent with the highest contemporary standards in their disciplines or fields of study. It also expects that its members will develop and maintain high standards of competence in designing and evaluating courses, in presenting their subject matter, and in assessing student performance. The Association accepts that the development and participation in extension courses constitutes an important aspect of its members' teaching role.

Research

The Association expects that its members will carry out, supervise, and publish research or engage in other creative activities in a manner which is appropriate to the highest standards and the ethics of their respective disciplines or fields of study, and which is efficient in the use of resources.

Administration

The Association encourages its members to participate in the administration of relevant boards and committees of their universities, expecially in the departments in which they hold appointments. Administrative work implies, and should entail, an opportunity to participate in the decision-making processes of the university. In carrying out administrative tasks, the Association expects that its members will use resources effectively, and that they will be familiar not only with the mechanics of the task but also with the wider objectives of the department and the university.

Community Involvement and Consultancy

The Association encourages its members to contribute their expertise to professional organisations and bodies outside the universities, and to the community in general. Where this involves consultancy work and clearly enhances the quality of teaching and research or offers a service to the community not otherwise available, it should be considered an important professional activity for academic staff. The Association expects that members would not undertake such activities solely for remunerative purposes. It also expects that consultancy work would not interfere with the discharge of members' teaching, research, and administrative responsibilities within their universities, or endanger their independence as academics.

THE ROLE OF COLLEAGUES

The Association believes that a university is a community of academics, students, and support staff grouped in various ways to carry out the functions of the university. Accordingly, it makes the following points on what it considers to be its members' roles in ensuring professional standards.

The Association urges its members to accept, on the basis of mutual trust, some responsibility for the induction of newly appointed academics into their professional roles, and for the ongoing support of more experienced staff.

Conversely, the Association urges its members to seek from their colleagues and students such comment and advice as is relevant to their professional development.

The Association expects that in carrying out their administrative role members will consult with their colleagues.

THE ROLE OF THE UNIVERSITIES

The Association expects universities to establish appropriate opportunities for academic staff to develop, maintain, and obtain recognition for competence in the areas of professional responsibility as outlined in the previous section. Such opportunities should be provided both initially and at appropriate times in an academic's career. In particular, the Association would wish university councils to implement the following policies:

1. Universities should state clearly their policies on the professional development of academic staff.

2. Universities should provide co-ordinated programmes of professional development for academic staff taking up their first university positions. Such programmes should be directed at assisting staff to gain the skills required to satisfactorily discharge their academic responsibilities.

3. In general, universities should delegate to heads of departments much of the responsibility for ensuring that newly appointed staff are adequately inducted into their professional roles. In discharging this responsibility, the Association would expect heads of departments to provide adequate opportunities for induction to take place and to regularly inform staff of their progress.

4. Universities should encourage and support academic staff members who wish to carry out research into the objectives and techniques of university teaching.

5. Each university should provide resource personnel with responsibilities for assisting academic staff in carrying out their teaching role.

6. Universities should continue to provide funds and leave opportunities to enable staff to maintain the highest possible professional standards.

7. Universities should provide the facilities and conditions that enable academic staff to carry out their professional responsibilities at the highest possible standards.

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Symmetrical communication: Developing understanding and consensus in course teams

S. Kemmis

In this paper, the notion of "symmetrical communication" is discussed. Symmetry in communications is evident in groups characterised by mutual recognition by members of one another as persons accepted and appreciated in their common striving for mutual understanding and consensus. The paper describes how a group of Deakin University staff members went about developing the arts of symmetrical communications in their own working group, and some of the things they learned in the process. The technique used by the group is based on informal videotape analysis and group discussion of blockages to communication. The development of such skills seems especially useful for improving the work of course teams which depend upon mutual understanding and consensus if the courses they develop and teach are to make the best use of the joint resources of the team.

At the May 1979 Annual Conference of the Higher Education Research and Development Society of Australasia (HERDSA), Dietrich Brandt of the University of Aachen offered a workshop on "symmetrical communications". According to Brandt and his co-workers Bruno Werner and Irene Drexler, symmetry in communications is evident in groups characterised by mutual recognition by members of one another as persons appreciated and accepted in their common striving for mutual understanding and consensus.

The thesis of the Aachen group is this: a working group tends to become communicatively incompetent, less satisfying for participants and less effective as a group capable of producing joint commitment to agreed action when communications in the group are distorted by considerations of status, internal power-politics or members' failure to respect one anothers' points of view. Suspension of status-considerations is necessary to achieve a climate where reason prevails and where group decisions are the most defensible ones, given the group's combined resources. Internecine politicking must be suspended to promote the community self-interest of the group and the attainment of consensus and joint commitment, and to avoid the group's coming to serve the self-interests of only a small part of its membership. Recognition and acceptance of members is necessary to achieve representation of all members' perspectives within the group forum and so to engage the disparate interests and perspectives of members and build these into

a framework of common understandings and shared perspectives which promotes the community self interest.

Brandt's workshop at the 1979 Annual Conference introduced participants to a technique for promoting symmetrical communication in groups in higher education. Groups are videotaped in the course of their discussions, the tape is replayed and the "moderator" invites members to participate in the identification and analysis of blockages to symmetrical communication, and the formulation of strategies to achieve greater symmetry in communication.

At Deakin University, much of our course development work takes place in course teams. Like groups in higher education institutions everywhere, these teams have communications problems which are the product of asymmetrical communications. Since so much of our work depends on achieving joint commitment to courses developed as wholes -- as curricula, not just aggregates of individual perspectives -- it seemed to us to be useful to invite Dietrich Brandt to spend a few days with us helping us to learn techniques for developing symmetrical communications. This he did, using essentially the same approach as in the HERDSA workshop.

In this brief paper, the progress of the group in using the strategies suggested by Brandt is reported. A videotape is also available which depicts the use of the technique by the Deakin group.

A number of interested staff at Deakin attended the Brandt workshop on Friday, June 1st, 1979. The group consisted of "course assistants" who work on course teams in a variety of roles (from clerical assistance through research assistance and editing to academic development roles), members of the University's Production Unit, and academic staff involved in course development and teaching (from a number of different course teams). One role for the "Symmetrical Communications Working Group" (as it came to be called) was to explore the possibility of giving course assistants a role in the development of symmetrical communications in course teams.

For a variety of reasons, the focus of the group changed. These reasons included the availability of participants' time, the apparent intransigence of some course teams to the development of a more symmetrical communications, the level of commitment required to develop the techniques over time, and the emerging interests of the participant group which settled down at about ten members of whom only three or four were course assistants. The focus remained largely on the development of symmetrical communications in course teams, though it was increasingly perceived as a matter for all course team members, not just course assistants. Course team chairpersons may have a special role in bringing about greater symmetry of communications, as might course assistants, but any member could intervene in the group process to reveal blockages to communication and help to achieve greater symmetry. Some participants in the Working Group also saw the wider applicability of the concept and the techniques for developing it; for this reason, the Working Group began to consider the variety of groups and committees throughout the University where symmetrical communications might fruitfully be developed. Members also considered the development of symmetrical communications in teaching/learning relationships.

We have some hopes of longer-term developments in symmetrical communications in our approach to teaching and learning at Deakin. A final possibility was that the Working Group might seek some kind of consultancy role with respect to course teams in the University more generally and use the techniques we had explored in this wider context. This last possibility was rejected on the grounds that seeking this "service" or "technical" role was contradictory to the basic principle of symmetrical communication. We recognised that we could accept such a role if invited to do so, but that we would then be obliged to adopt the strategy of the "hidden compromise" developed by the Aachen team in their relations with higher education teachers: pretending to be "expert" in order to gain access to and credibility with our colleages, but only serving as "moderators" of the process who helped members of groups to articulate their reactions to communications blockages they already experienced; developing group sensitivity about the signs, symptoms and consequences of communications blockages; helping the group to formulate strategies for overcoming asymmetry and the blockages to group process caused by asymmetry; and ultimately helping the group to become self-sustaining in the development of symmetrical communication (one sign of which would be dispensing with the services of the outside "moderator").

It was not, and is not, the view of the Working Group that course teams can operate entirely without conflict or misunderstanding. On the contrary, the occurrence of conflict and misunderstanding is natural as groups work towards consensus and mutual understanding.

But conflict and misunderstanding may generate disaffection within a group which alienates members and reduces their commitment to the group project. Should this state of affairs become endemic to the group's process, then the prospect of joint commitment in a common task recedes, and the group project may disintegrate along the lines of self interest (or sub-group interests) within the group. More commonly groups reach a dynamic equilibrium at some level of entrenched disaffection and internecine rivalry, sometimes remaining more productive, sometimes less. Hierarchy, compulsion and status may provide the "glue" which holds such groups together, but its consequences may be experienced by group members in degeneration of group commitment, fragmentation of the framework of common understanding, and feelings of dissatisfaction, alienation or exploitedness among members whose interests are not being served in the working relationship.

"Symmetrical communications" as a concept is a description of an ideal process in which these dysfunctional tendencies are consciously recognised and deliberately countered. It is our project as a Working Group to discover strategies by which we might foster individually-satisfying and mutually-productive group relations.

Our method in our regular meetings was this:

1 The group met and discussed a topic decided in advance. The topic was usually one of particular concern to one or a few members but relevant (as far as possible) to all our interests. For example, in one session we discussed a proposed evaluation of Deakin University Study Centres. In another, we discussed the possibility of making a

film about the operation of course teams at Deakin.

2 These discussions were videotaped by a member of the group. The role of videotaping was shared among members in different sessions and was relatively inexpert: we all shared in the learning process and developed some sense of more useful material for subsequent discussion of group processes and individual responses. We also chose to use the least sophisticated technology: black and white portapack equipment which could be readily replayed in the small seminar rooms where we met, no special lighting, no special microphones outside the one in the camera, and so on. We wanted equipment we could use rather than high-quality production equipment for public performances. (The "production" videotape of our work is unrepresentative in this respect, since we were obliged to meet in a Deakin studio to produce higher-quality material, and we felt the discussion was slightly stilted under the bright lights and in the presence of studio-technicians with their sophisticated equipment).

3 After the videotaping session, which usually lasted about twenty-five minutes, we replayed the videotape. Whenever some member of the group noticed some blockage to communication, some individual reaction of discomfort, some especially constructive contribution or some other pattern of interaction which deserved comment, the videotape would be stopped. A relevant section might be replayed. Individuals involved in the incident of interest would be invited to enlarge on their actions or reactions, explain their points of view, speak to the significance of the incident in the group process, or otherwise help to make the group process transparent. Then wider group discussion would begin, with the group attempting to confirm the apparent pattern, find reasons for the blockage, or interpret the group effects of the incident. Where possible and appropriate, strategies for preventing the blockage or overcoming its immediate effects were suggested. Of course it was important to develop and maintain an attitude of trust, good humour, empathy and constructiveness. We were not a therapy group attempting to analyse each other as individuals; we were attempting, as far as possible, to understand the processes in which we played parts and the events we influenced and were influenced by. It should be remembered that we were an "artificial" group meeting solely for this purpose, so we did not have to overcome the habitual forms and asymmetries which more permanent groups may need to confront. But it should not be thought that the fact of our transience made us so different: the group contained members who have constant working relationships, and we quickly recognised that we were developing stable roles and interests within our group, as well as importing some habitual patterns from other groups of which we are members into the Working Group.

4 Main points emerging from these discussions were recorded as "minutes" on overhead transparencies when this was possible -- in this way, all participants could see how our learnings (and the minutes) were shaping up. These transparencies were later photocopied and distributed to participants as a record of the meeting.

This process was repeated in five meetings after the original

workshop and before we began preparations for "going public" -- making the videotape which we hoped might serve as a discussion-starter for other interested groups in Deakin or beyond.

Some of the things that attracted our attention in the regular discussion-sessions included:

- the development and the effects of "rules" for "turn-taking" in some discussions

- the effect of conversational gambits like "that's a good question" or "that's interesting" which could be used by one speaker to patronise or dismiss another while apparently supporting him

- the use of the "filibuster" by a speaker to cloud the moment-by-moment interplay of a discussion and gain initiative or dominance

- the use of desks by participants as "platforms" to gesture against or retreat behind

- the pervasive phenomenon that participants in group discussions simply don't listen to one another or hear one anothers' point of view as "real" -- and often systematically ignore one another while planning privately and waiting for an opportunity to make the next point

- the general relation of gesturing to speaking (sometimes small agitated movements indicated that a participant was about to speak or wanted to come into the discussion)

- the general phenomenon that small muscle movements often indicated tension or anxiety (our videotapes contained a great deal of footage of fingers, hands and feet moving restlessly).

Our analyses helped us to find patterns in our interaction which may or may not be typical of other groups, but which suggested more global group effects and strategies for overcoming some kinds of problems. For example,

- members becoming "scapegoats" in moments of group crisis in discussion

- the politics of establishing a base for a point of view by appealing to likely supporters and isolating likely opponents

- the "neutral chairmanship" role of sorting out problems in communication

- the strategy of documenting approaches to agreement in discussion by using an overhead projector, butcher's paper or a blackboard to keep "visible minutes"

- the value of defusing contentious issues by seeking agreement on prior points, reflecting on claims made by speakers after conceding their potential merits or intervening in a debate to ask "what's going on here?"

- possible roles for course team members in monitoring group interaction and interfering with group processes explicitly to establish mutual

comprehension, to encourage members to contribute, to clarify issues or to support chairpersons in a non-threatening way.

In general, the group enjoyed the opportunity to meet for two or three hours about once a month to reflect on the processes in which we are constantly engaged: the processes of discussion and decision in groups. Even this little self-reflection seemed educative: too often we are involved in these processes as unconscious or intuitive actors, carrying habitual modes of response into new groups, reflecting relatively little, or learning not enough from our experience.

At its last meeting for 1979, the group began by doubting whether we had a sufficient commonality of interests or sufficient motivation to continue working together. Before too long, however, we had reached consensus that we should at least continue into 1980 to make a videotape about the processes we had used, as a stimulus to others. More importantly, perhaps, we have begun to apply what we have learned in other groups of which we are members -- as strategies for promoting symmetrical communication. It is, in a sense, an ideological commitment based on distaste for hierarchy, distrust for compulsion, and dissatisfaction with the cynicism and self-interest of small-time group politics. But there are positive reasons for employing the arts of symmetrical communication which transcend what is negative about group or committee work which has become a tedious and habitual experience of compromise and which preserves the shreds of self-interest in a climate of contention. At the risk of sounding too much the Pollyanna, these positive reasons are that groups can work together to serve common interests, achieve recognition and acceptance of their members as persons, and establish joint commitment to common projects when they do so on the basis of reasoned discussion and free commitment. For perhaps more tasks than we care to admit, such aspirations are achievable.

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P A R T VI

EDUCATIONAL MEDIA: GREATER FREEDOM OR BRAVE NEW WORLD?

29. Growth of instructional technology: Greater freedom for the learner?
    D. Unwin

30. Freedom of access to learning resources - The challenge of big government and big business
    G.R. Brong

31. Effect of packaged learning units on students' freedom to learn
    D. Hlynka & P. Hurly

32. Media accountability: Keystone of the freedom to learn
    M.B. McLaren

INTRODUCTION TO PART VI

Approximately half the research and development units referred to in the introduction to Part V have responsibility for the coordination of media services in their institutions. Most of the other units have established close links with a separate instructional media division, so that it is natural to expect staff of these units to be aware of relatively new developments in educational technology and to recommend their use to clients.

The first three papers in this part examine the direction likely to be taken in higher education should there be a widespread adoption of packaged learning units designed for a mass market. Whereas D. Unwin and G. Brong emphasise the dangers, D. Hlynka and P. Hurly list some of the advantages which can flow from educational technology. M.B. McLaren takes a more neutral stand and concentrates on providing guidelines for the more effective use of educational media, as a result of which, he claims, learners will have greater freedom to develop the knowledge, skills and habits of study that best fit their needs.

Growth of instructional technology: Greater freedom for the learner?

D. Unwin

Technological innovation is directly affecting the teaching and learning processes in at least two distinct ways. On the one hand advances in the scale and efficiency of the mass media have led to a situation where the learner, particularly the child, possesses a far greater background awareness of contemporary events, opinions, movements, trends, etc. On the other hand, developments in audio-visual media, both hardware and software, have given the teacher powerful tools of communication, by which his message may be the more successfully inculcated, or indeed indoctrinated.

Thus, quite apart from questions of relative effectiveness, it can be seen that the two aspects of instructional technology cited above may tend to have opposing tendencies as regards the intellectual freedom of the learner: his mental defences are toughened by the general media climate, but at the same time the communicators are in possession of improved weapons of attack.

So long as the educational dialogue was conducted between one human being and another, or between a human being and a static artifact such as a book, or between a human being and a proxy as with film or television, then changes in educational technology could be regarded as minor, considerably overshadowed by the presence of the human teacher. There are signs, however, that a change of kind rather than of degree is upon us.

During the 1960s, the *teaching machine* was the subject of much investigation and calumny. The actual impact of such machines was small and few survived into the 1970s. Nonetheless, their importance may well be judged by historians as significant, insofar as the period of trial and use coincided with the first flowering of the potent forces contained in the digital computer. It is becoming clear that the deficiencies of the early teaching machine are easily remedied by the use of computer controlled instruction, and that previous drawbacks concerned with the cost of computing machinery, and with the rigorous demands of the computer as regards communication across the interface, are now as good as solved. If only a fraction of the forecasts made on behalf of the computer as teacher are fulfilled, there will still come about a drastic shift in the balance of educational power, with the teacher and indeed the teaching institution no longer occupying their existing role of dominance.

Clearly, instructional technology is now a force to be reckoned with in education. It is at least arguable that we are rapidly approaching a state where the balance between freedom and authority, for long unthreatened by innovation, is at serious risk.

INTRODUCTION

Defining what is meant by a technology of instruction has tended so far to be a matter of personal preferences and prejudices. Each expert regards technology in a different light. The spectrum of opinions contains at one extreme the purely mechanistic, wherein any so-called 'advance', from less dusty chalk to more sophisticated student terminals for Computer Assisted Instruction, is deemed to be the real substance of instructional technology (I.T.). On the other hand we have what one might call the 'mystic' school of thought; these practicioners are not concerned with real objects which can be comprehended by the layman: to them I.T. means the application to education of esoteric concepts generally lumped together under some such title as 'systems design', or the even more arcane 'systems approach.'

In between the material improver and the systems applier come a whole range of activists, to each of whom I.T. means something different. All are agreed, however, that I.T. is changing education and most would say that this change is beneficial. That is, *education* (whatever that might be in this context) would be improved in quality or quantity and quite possibly both, if their particular brand of I.T. were adopted as quickly and intensively as possible. It is the purpose of this present essay to suggest that some forms of I.T. could have an alarming effect on the *quality* of education, although the benefits as regards *quantity* may be indisputable.

Let me immediately state why I am using the term *Instructional* Technology, rather than the alternative *Educational* Technology which enjoys wide usage. This is because the two terms are clearly not synonyms: I.T. relates to the didactic situation, the teaching of the teacher, the learning of the learner. E.T. includes I.T. and much more besides; - few of us would consider education to be entirely bounded by didacticism. Disciplines such as sociology, medicine, architecture and so on will contribute much to a technology of education, but my concern here is mostly with the fields of teaching and learning, narrowly defined.

There are several arrangements for teaching and learning which owe nothing to recent innovation. Many lectures, seminars, discussions, etc., contain apart from their human ingredients only chalk and board - if that. Similarly, the bulk of individual learning materials are far from new: the text-book, paper, pen, - these have long been with us. However, during the twentieth century, and especially during the past twenty or so years, a whole series of technological contrivances, both mechanical and systematic have entered the classroom. These include *audiovisual aids, broadcast and closed-circuit television, teaching machines, programmed learning, simulation, and computer assisted instruction.* I propose to examine the more didactically significant of these from various viewpoints, in particular as to what exponents of these innovations claim for them, and what their potential might be for changing the quality or quantity of education.

AUDIOVISUAL AIDS

Audiovisual aids, or in the earlier terminology, *visual* aids, have been with us virtually since the birth of photography and became increasingly significant following the emergence of the motion picture industry. Training films were widely used in the First World War, and by the early 1920s a number of educational institutions were offering summer schools in 'Visual Instruction'.

In 1922 a grant of $10,000 was made to the University of Chicago, to be used under the direction of F.N. Freeman, to support a study of educational motion pictures. A series of major investigations were carried out in the subsequent two years. The publication of the results of this research (Freeman 1924) had a major impact on the development of the use of visual aids.

Audiovisual aids today comprise a wide assortment of hardware and software, including for example, film strips and slides, motion pictures, tape recording, various types of display, closed-circuit television and so forth. Most teachers accept these things as *aids* and use them

when they can enhance a lesson by so doing. The limiting factors are usually ones of finance and convenience: even in industrialised countries institutions are unable to afford a total sufficiency of audiovisual aids, and when a given aid is available the individual teacher may still not find it easy to use. Operating some 16mm projectors for example requires motor and intellectual skills of a high order!

Few educationists would dissent from the view that audiovisual aids make an important contribution to the quality of education. The overall impact of such aids is however small except in a few particularly visual subjects and generally confined to adjunctive support of the teacher. The future does not seem likely to make this an invalid description, although we may note that various non-human systems of teaching also use audiovisual aids for support and this is an increasing tendency.

BROADCASTING

The advent of public and commercial broadcasting in the 1920s inevitably gave rise to the educational exploitation of radio. The subsequent use of radio as an instructional medium has been rather uneven: in the U.S. television overwhelmed radio for instructional purposes, whereas in many developing countries radio is a vitally important educational medium, playing a big part in widespread literacy and hygiene programmes. In Europe radio is still important: the B.B.C. for example putting out some 15 or so hours of schools' radio in a typical week, and of course fulfilling a major role in the operation of the Open University with both radio and television classes.

However, it is clear that whenever a nation is capable of footing the bill, broadcast television will be the preferred instructional mass medium. By this means vast numbers of students can be instructed by "electronic teachers" using both audio and visual communication channels. (Unless, of course, the audience *is* vast the endeavour becomes ruinously expensive).

What are the future plans of the TV educators? Well as long ago as 1968 Saettler (1968, p. 238) said:

> National interconnection is unquestionably the next goal of educational television', and 'After national interconnection has been achieved, an even more interesting prospect is the possibility of world-wide eductional television by means of communication satellites.

These prophecies have not transpired, for reasons concerned both with the upsurge of curriculum development programmes and with technical innovation, especially the rapid growth of cheap videotape machines.

It is largely true to say that at the present time broadcast television is not a particularly significant didactic medium. I shall return to the possible reasons for this anomaly later.

TEACHING MACHINES

Teaching machines were transiently introduced into American education by S.L. Pressey (1960) in about 1925. For economic and other reasons little

further development took place until the 1950s when B.F. Skinner's work came to the notice of education. Generally the teaching machine is coupled with the concept of *programmed learning* but this association does not seem inevitable. Certainly teaching machines have been used to present programmes; but Pressey's machine taught by administering tests and there are a wide variety of devices including simulators and reading enhancers which purport to teach. It would seem fair to use the term 'teaching machine' for devices which are intended to *supplant* the teacher, so distinguishing this category from audio-visual aids which *support* the teacher.

Thus a number of devices rank as teaching machines - robot teachers if you like. These range from the humble and now extinct linear machine ('the most expensive arrangement yet invented for turning the pages of a book') to the largely defunct language laboratory or indeed the aircraft simulator costing millions of dollars. Teaching machines, given a steadily improving efficiency, certainly possess the potential for usurping the human teacher, especially such arrangements as Computer Assisted Instruction which merits separate consideration below.

One can hardly do better than close this brief consideration of teaching machines with a quotation from Skinner (1954). He is in fact referring to machines for presenting linear programmed learning sequences, but one can readily imagine even more glowing rhetoric being used in connection with the potent devices now emerging:

> There is a simple job to be done. The task can be stated in concrete terms. The necessary techniques are known. The equipment needed can easily be provided. Nothing stands in the way but cultural inertia. ..... Education must accept the fact that a sweeping revision of educational practices is possible and inevitable. When it has done this, we may look forward with confidence to a school system which is aware of the nature of its tasks, secure in its methods, and generously supported by the informed and effective citizens whom education itself will create.

(The reader is invited to compare this vision of the brave new world with that of Huxley quoted below. Skinner's final sentence is capable of more than one shade of meaning).

CLOSED CIRCUIT TELEVISION

Closed circuit television (CCTV), wherein the television cameras are connected by cable (or exceptionally by microwave link) to the receivers has been a major educational growth area for two decades or more. Back in 1957 Stoddard considered that:

> ... no new elementary school should be built today without a television studio and closed-circuit apparatus and connections for telecasting to all parts of the building and play spaces.

Since the words were written there has certainly been made a vast investment in CCTV installations. Both at school and college level

Directors of Television are appointed, and much time is devoted to sending signals back and forth around the system. A number of different uses have emerged, some coming into the category of audio-visual aid, for example the relaying to students of activities where it might be dangerous or inconvenient to have the students physically present, as in demonstrations of moving machinery or dissection work in biology. Other activities are customarily referred to as 'creative', and correspond in some degree to the TV work of the professional. This includes work in drama, dance, communications. A third field of CCTV is where the hardware is used to magnify a lecturer's capability in space and time, either by relaying his performance to several class-rooms or (possibly as well as) by taping the lecture for subsequent use.

If it feasible of course to achieve an effect similar to broadcast television by the widespread inter-lending of such video-tapes, and this result can be secured without the logistic and financial problems inseparable from establishing broadcast educational television on any scale.

Notwithstanding various well-publicised examples of school use, it is fair to say that extensive CCTV facilities have largely remained the province of post-secondary education. This would be especially true of installations involving a studio complex and either a hard-wired distribution system or a multiplicity of video recorders.

PROGRAMMED LEARNING

Programmed learning is probably the development which has been most responsible for crystalisation of the I.T. concept. As originally conceived by Skinner (1954) and to a lesser extent by Crowder (1959), it was essentially verbal materials which could be programmed: either as books or else as paper or film for a simple teaching machine. 'Programming' meant, in the main, the fragmentation of subject matter into small - often tiny - steps, and the continual quizzing of the learner to supply him with reinforcement. Other quoted aspects of programming included behavioural objectives, self-paced work, and careful validation to ensure that objectives were met.

After a tremendous boom in the late 1950s and early 1960s programmed learning as such now no longer enjoys the same interest and popularity. Publishers still have programmes in their lists, but the idea of the programme ousting the regular text-book, as appeared possible at one time, now seems ridiculous. The reasons for the failure to maintain early promise are complicated, even obscure, but one significant element was the mass of null research results obtained in experiments involving comparisons between programmed learning and a variety of other systems and procedures.

At the same time as the paper programme was establishing a small but honourable place for itself in the teacher's armoury, there also arose a vogue for viewing programmed learning as the *essence* of I.T. This customarily meant the application of the 'principles' of programming to any learning arrangement, whether it be television, language laboratory, teacher oration or whatever. Thus Edwards (1967)

considered that,

> Programmed Learning is, in fact, the language of these new systems of learning.

It is not always clear *how* the principles (whatever they may be) or 'language' of programmed learning are to be applied to each and every learning situation. What the exponents seem sometimes to be saying is, 'Whatever you do, think it out and do it well.' Sound advice, no doubt, but not a great deal of use to the educator seeking specific guidance. An unfortunate by-product has been the growth of learning systems and devices, both commercial and academic, which are claimed to 'incorporate the elements of programmed learning.' This is deemed to give the materials desirable additional properties, rather like the miracle ingredient so necessary to any respectable soap powder.

The potential of programmed learning is difficult to assess, as much as anything because of the difficulty of pinning down the actual meaning of the term. If the definition is limited to prescribing a rigorous schedule for the construction and validation of learning materials, then it seems likely that 'programming' will be an increasingly important feature of education as time goes by.

COMPUTERISED INSTRUCTION

A number of jargon terms have become current for the activity of using computers for instruction. These include, for example, Computer Assisted Learning, Computer Managed Instruction and Computer Assisted Instruction. Other permutations are possible but no-one seems to care greatly for Computer Controlled Learning which would appear to most adequately describe the goal of the enthusiasts. For simplicity I will here stick to Computer Assisted Learning (C A L).

In the early days of teaching machines it soon became obvious that the sort of operations one would like to perform could only be handled by a machine of considerable electronic complexity. At about this time the digital computer was gaining immense ground, and the happy idea of using a computer as a teaching machine was soon seized upon. Mostly results were disappointing: the sheer power and flexibility of the computer had an intoxicating effect, such that attempts were made to lay bare new psychological truths without really giving the concept of C A L a reasonable trial. Most workers stopped short of providing the computer with an enormous store of didactic material, such as would permit it to play its role as a super-teaching machine. One early difficulty was the virtual absence of adequate interface facilities: communication between computer and student was mostly by tele-typewriter, a slow and ardous business.

However, over the years slow progress has been made, both as regards hardware and software, but it would be fair to say that elaborate computerised teaching systems, exemplified by PLATO (see, for example, Eastwood and Ballard 1975) a commercially available system originating at Illinois University and recently demonstrated in Australia, have in general not stood the test of time. Although research and development in this field was under way by 1960 and has been generously and consistently funded to this day, results to say the least have been disappointing. It would seem that - in many cases - the glamour

of the computer has proved too much for the investigators, who have subjugated pedagogic requirements in favour of the exotic delights of the machinery.

However, times are a-changing. The rampant advance of technology has given us the micro-processor and we now have mini-computers with extensive memories, disc storage and low cost. Thus the concept of *decentralised* CAL becomes viable, eliminating at a stroke many of the *technical* problems which have confounded the spread of CAL for so long. At the same time, the previously discounted educational problems become more amenable, not least because of the increasing accessability and convenience of decentralised resources.

As we move away from the large centralised computer concept, except of course for administration and number-crunching purposes, we at last enter an era in which for the first time it becomes possible - and indeed likely - for most students to receive substantial quantities of instruction from a form of teaching machine. It is to the problems and pitfalls of such a procedure that I now turn.

THE WAY AHEAD

To what degree is the research worker liable for the use to which his creations are put? As first the physical scientist and then the biological scientist produced their ever more horrific weapons of destruction this question has been interminably discussed. This is not the place to examine the merits of such argument, but it is becoming clear that the ethical dilemma that has long confronted the scientist may soon become equally real to the educationist.

Over the years many prophets have consulted their crystal balls and produced various pictures of the future of education. These have ranged from the Utopian to the sinister, and often foreshadowed a notable degree of mechanisation and social engineering.

It is platitudinous to remark that if only a minority of these forecasts become commonplace, not only education will be in the melting pot. Equally certain it is that voices will increasingly be raised against even the thought of 'mechanising' education to any real extent.

The educator's defence is likely to be along familiar lines: knowledge is not intrinsically evil, it is the use to which men put it that can corrupt and destroy. Confounding all discussion is likely to be the universally accepted axiom that it is generally 'good' if instruction becomes more effective and efficient.

It would take a braver man than the present writer to do more than roughly plot the future of instructional technology, and its impact on the student and the teacher. What I am attempting in this paper is to suggest that instructional technology will steadily gain ground, and that there are considerable dangers inherent in this process.

THE EFFECTIVENESS OF INNOVATIONS

In general, the products of instructional technology tend to be initially oversold by their enthusiasts, who are happy to claim

improved effectiveness and efficiency, and this with apparently no compensating disadvantages. This was most noticeable in the early days of teaching machines: if one half of the claims made had been subsequently justified then schools and tertiary institutions would today be totally different places and teaching a very different - perhaps nonexistent - profession. So far then, we have from one viewpoint been lucky; the efficiency of the new machines or of the new systems has proved to be little if at all superior to traditional chalk, talk and books. At least this is true of the quality of learning by an individual student as measured with the instruments at our disposal. However, complacency about the effectiveness of new instructional devices is now less well-founded.

So long as innovation merely scratched the surface of conventional teaching it was hardly likely to be demonstrably superior. But let us start to change the system - the *organisation* of teaching and learning - and we enter a totally new arena: one in which threats and dangers, subtle and not-so-subtle, will be integral and formidable.

THE THREATENED LEARNER

As a result of existing and potential refinements in the technology of instruction the freedom of the learner will come under increasing pressure. In the past two major danger areas were identified: the use of mass media, especially television, for the provision of vast uniform courses of instruction; and the spread of computer-controlled teaching systems. The threat of television seems to have receded for several reasons, in particular perhaps its lack of interaction, and its inevitable preoccupation with and domination by circumstances related to the lucrative trade of entertainment television, where the only tolerated form of scientific enquiry into content is the counting of heads. But as I have said, even though we can discount any threat from television, the latter danger area, is now upon us with full force.

How will the new technology appear to the learner? One can foresee few objections from the students of ubiquitous teaching machines: from their point of view they will be receiving a flexible education tailored precisely to their needs. Government agencies will be able to ensure that just the right proportion of workers in each field of endeavour are trained, and most graduates are likely to be content with their lot and solid in their support of both the educational and political systems.

Aldous Huxley in his foreword to the 1950 edition of *Brave New World*, spells out the prospect as follows:

> A really efficient totalitarian state would be one in which the all-powerful executive of political bosses and their army of managers control a population of slaves who do not have to coerced, because they love their servitude. To make them love it is the task assigned, in present-day totalitarian states, to ministries of propaganda, newspaper editors and schoolteachers. But their methods are still crude and unscientific. The old Jesuits' boast that, if they were given the schooling of a child, they could answer for the man's religious opinions, was a product of wishful

> thinking. And the modern pedagogue is probably rather less efficient at conditioning his pupils' reflexes than were the reverend fathers who educated Voltaire ..... The most important Manhattan Projects of the future will be vast government-sponsored enquiries into what the politicians and the participating scientists will call 'the problem of happiness' - in other words, the problem of making people love their servitude.

Huxley's future has these aims fulfilled by both eugenic and educational means. We may regard his sleep-teaching as an unpromising medium in the light of more recent research, but the 'brave new world' will be just as easily served by other instructional devices such as those touched upon in this paper.

In fact the threat to the learner comes from several sources: the catalyst is the multi-purpose computerised teaching station which for the first time offers the possibility of effective, individualised, planned courses of study - programmed learning *ne plus ultra*. The specific elements of danger include:

(1) The Trojan Horse syndrome: extensive tracts of computerised learning materials may contain subtle and unsubtle indoctrination features.

(2) The staggeringly profitable publishing market for such learning materials, with the almost certain domination of the field by non-Australian publishers and agencies.

(3) The ability of the machines to keep elaborate records of students' responses and patterns of work, including responses, etc, which may be highly revealing for purposes far removed from the ostensible subject-matter.

(4) A possible trend towards uniformity, especially if particular programmes come to eventually dominate the market.

None of these threats is of significance yet, but by the time they are perceived as important, it may be too late. The time for action is now: educators - at all levels of education - must exert great vigilance in their approach to educational computer software. Standards and implementation procedures need to be elaborated; politicians and administrators must be made aware of our concern. The newer products of instructional technology offer both advantages and dangers, action now can ensure that society and the individual reap only the benefits of new technology.

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Freedom of access to learning resources — The challenge of big government and big business

G.R. Brong

Advantages and disadvantages which arise from the increasing interest by large national and multinational organisations in the production of teaching and learning systems are described by an educational technologist. While the pooled resources of large companies can result in high quality products or equipment at prices which cannot be matched by smaller firms, there is a danger that products will not suit particular local markets, that the content or methods of learning will be controlled by commercial or political interests and that the needs of individual learners will be neglected.

Are big government and big business a threat? Not necessarily so. Nevertheless a few things need to be considered as one makes decisions about possible threats to our "freedom to learn".

All persons involved with the processes and tools of educational technology in this decade must be concerned about freedom of access to learning opportunities, more specifically freedom of access to appropriate resources which maximise our teaching and learning activities. At the outset I must stress that just because big, capitalistically oriented business and government get involved with the production, distribution, evaluation, regulation, or provision of learning opportunities or resources it does not necessarily mean that our freedoms are threatened in any way. But it must also be stressed that those of us claiming to be professionals as educational technologists must not become complacent as government and business enter the fields related to the provision of learning opportunities and resources.

The decade of the 80's will be known as the decade in which great moves were made to maximise learning opportunities. In reality new learning systems, far beyond formal school programmes, will be opened up and people will actively pursue opportunities for learning. These learning activities may be vocationally or professionally related as well as recreationally related. The important thing, however, is that there will be an increase in business involvement in teaching and learning.

These businesses may take on the form of production and publishing, provision of human services related to teaching or facilitating learning, prescription and distribution of learning opportunities, or even the sale of related equipment to interact with teaching-learning resources. People will pay to acquire new skills and knowledge. Any time a situation develops in which financial transactions can occur for the provision of a product or a service there are potentials for difficulties. These may be defined in a number of ways.

Let us examine commercial interests involved in the sale of products or services related to teaching or learning. These commercial interests generally have profit motives which drive the commercial programmes in their quest to maximise income at minimal costs. Products will tend to have generalized content and will be targeted at as wide a market as possible. This product generalization may ignore unique differences between consumers in ability to learn from the informational resources provided. Furthermore, it might ignore regional or national desires about what is to be taught and by which of the available strategies. Product generalization may lead to boring sameness.

Another potential threat from the effort to maximise income and reduce cost is that products may be designed to be timeless - in essence efforts may be made to remove any time-date referencing in learning materials, thus giving them longer market life. This in itself is not necessarily a negative factor, but it may be a new phenomenon with which most learners lack experience.

Two areas deserving attention as learning resources are mass-marketed are content validation and the evaluation of learning occurring through the use of the product. Will we have consumer advisory groups evaluating educational and learning resources? Will these advisory groups actually provide statistically valid and reliable measures? Who will determine the criteria against which the evaluations are to take place - will it be educational technologists or product managers?

There is little doubt that as the commercial products and services promising learning become available the competition between formal educational systems and these commercial interests will be strong. Possibly this competition will initially ensure high quality products at minimal costs; ultimately, a winner in the competition may cease to pay attention to quality. Freedom to select only from inadequate learning resources is a somewhat worthless freedom.

But consider the government and its interests in the commercialization of learning products and services. Will the government play a role in determining what content is acceptable for the learning resources? Will the government even go so far as to determine what kind of learning will be allowed outside formal educational programmes?

A more likely area in which the government will be involved is the evaluation of products and services as they might relate to safety and honesty in the representation of the learning expected to occur through the use of the product. The government can play a "watch-dog role" in protecting the public from unsafe, unreliable and unvalidated resources or services. In this posture the government's regulatory authority will become a strong factor in the market place. But that reputation can have negative effects.

Another possibility for the government would be for it to assume an interest in the provision of learning resources and services, taking a marketing posture just like the commercial interests described previously in which case, it is assumed that some form of regulation and evaluation of government services and resources would be necessary. Who will "watch-dog" the government?

Unfortunately, no-one has yet considered the learner's objectives. We assume that learners will have full control and freedom to determine what it is they wish to learn, when they wish to learn, and how they wish to learn. If we are to have true freedom this will be the learner's prerogative. But as commercial interests become involved in marketing services and products for learning it is probable that through advertising, persuasion, and other techniques learners will begin to lose some of their true freedom of choice in determining when, or where or how learning is to occur. Can we anticipate the marketing of teaching services or learning resources taking the same tone as the marketing of underarm deodorant or automobiles? (We might also ask if learners now have the freedom mentioned, but that is another critical issue.)

Educational systems are currently affected (both positively and negatively) by providers of learning resources or services for the support of teaching-learning activities. Generally there are promises of effectiveness, efficiency, low-cost, and wide acceptability relating to the products and services being commercially marketed to educational systems. These services and products do have a major impact on learners, the way teachers function in the classroom, and the successes and failures of our educational undertakings.

We are concerned with learning on a far broader scale than just in the formal classroom. Learners need freedom as they select learning opportunities in the broadest of contexts. Recreational learning is just as important as academic and/or vocational activities. People constantly pay money as they seek skills related to sports, hobbies, and other primarily recreational pursuits. In fact, recreation through learning and learning as recreation is already a major industry. Consider photography, home computer systems, sports instruction, boating, painting, sewing, etc. Combine this kind of training with the sale of powerful resources that make use of media and the processes of educational technology and sales can increase. In our formal educational system we assume that the content offered to learners has a high degree of content validity. Further, we assume that the processes used in the teaching-learning environment have been evaluated and do relate to effective learning programmes. Lastly, we assume that the specific learning that is to take place within the educational system (as well as the strategies through which it is to occur) has been selected as appropriate for the specific learner or teacher.

With much classroom learning the content and method is fairly rigidly prescribed. What will happen as this learning occurs outside the formal education system where a learner can pick from a variety of "on-the-shelf" resources guaranteeing or promising certain learning. Will their appropriateness match that of the classroom-based learning under the tutorship of a trained educator?

It is suggested that as businesses, not now recognised parts of the educational establishment, move into the teaching and learning field, it will be necessary to certify them and regulate their provision of educational resources. It is also suggested that producers of resources need to be "certified or accredited", verifying that the resources they provide are indeed valid and reliable. Further, the prescribers of

learning experiences (in a learning store, for example) need to be evaluated, verifying that they can prescribe appropriate learning resources to specific learners and learning tasks.

Managers of presentations systems (possibly those responsible for delivery technologies such as television or computer assisted instruction programs) need to be certified that they can provide necessary resources that will facilitate learning in a manner called for by the prescribers of that learning. The managers of these presentation systems might assume the role of pharmacist while the prescribers assume the role of physician. The resource producers might assume the role of a pharmaceutical company's research facility in which various medical devices and procedures are developed.

As we examine the commercial and government interests relating to the production of teaching and learning resources we must examine the impact of multi-national companies. There is a tendency as we generalise product and service development within a multi-national company to assume the posture of "what works here will work over there - won't it?" Will there be importation of learning resources, and direct learning services, from one country to another and will these resources be free from content bias, pedagogical bias, or other potentially negative impacts on the ultimate end user, the learner?

This problem inherent in multi-national companies also exists when we look at national companies. All too frequently it is assumed that learning throughout an entire country such as Australia, is the same in all regions or states and among all people. Will sociological training materials produced in Queensland for students in Queensland studying problems about Australia be as usable in all states of Australia?

There is significant power in big business whether that occurs within a business enterprise or government. This power is not necessarily bad. There is also potential for very high quality products in big business, a quality that cannot be achieved by small producers. On the other hand, with control of a market segment, quality can be allowed to deteriorate and the consumer of products will have little opportunity for alternative products or services. Thus competition is reduced or eliminated. Unfortunately, however, there is a tendency for governments to move in and regulate the size of business whenever the business is too large. This regulation may be for the benefit of people, the end users of the products and services, but it does have an impact on costs, quality, and ultimate content of any product or service produced.

Over the next decade we can expect extensive development of powerful learning technologies, both in government and commercial enterprises, which will make new demands on educators. We, the educational technologists, must redefine the roles of educational institutions in the light of alternative teaching-learning programmes developing. Professionalism is an extremely high priority as we consider the competitors that will be facing our traditional schools, colleges, and vocational training programmes.

As professionals we must be interested in providing the highest quality educational systems for all people that wish to be served by that system. We must be concerned about all people involved in the provision of that educational service. They must be trained, competent professionals. There must be certification in ensure that people involved in the provision of services or products facilitating learning meet certain professional skill and knowledge levels.

The new technologies are already having a major impact on teaching and learning programmes. These technologies, because of their power, are rapidly moving out of the educational system into the marketplace as they provide services directed to learners outside the formal system. Freedom is based on opportunities for choice. Loss of these opportunities for choice may come because of the competitive marketplace or because of over-regulation of products and services by government. Freedom of access to learning and teaching resources must not be lost in this decade of the 1980's.

Effect of packaged learning units on students' freedom to learn

D. Hlynka & P. Hurly

The purpose of this paper is to develop a framework to assist the instructional developer in the selection of packaged instructional formats which facilitate the utilization of specific freedoms in the teaching/learning situation.

This paper then develops a typology of freedoms which might be achieved by alternative teaching/learning strategies. This typology includes the freedom to:

1. select pace,
2. select learning sequence,
3. select content,
4. select learning strategies,
5. select degree of commitment/involvement,
6. facilitate/select access,
7. be creative.

This typology will be examined in terms of the system/instructor/student trichotomy which affects educational decision making. Relevant examples will be discussed from the author's experiences.

Media accountability: Keystone of the freedom to learn

M.B. McLaren

At a time when education is taking a very hard look at itself in all areas and at all levels it appears that some sort of measure of accountability is being used to determine if learning is taking place and that the institution is responsible for its conduct of the learning programme. It is surprising however, that no procedure or examination and implementation of a procedure for instructional material (media) accountability has come forward.

The purpose of this paper is to present a model for media accountability which is supporting both that programme and the students freedom to learn and which could interface with other existing accountability models for the subject discipline being equally effective at all levels of instruction.

One of the facts of life in education is the question of who gets first crack at the funds in the budget when priorities are being established. Will it be the coach? (the football team can't play without new uniforms); the physics professor? (the laboratory needs new equipment); the modern history instructor? (who needs a more up-to-date textbook than the one he's using, copyright 1970); or will it be the media director, who has spotted an excellent video programme series on ecology and natural science? Too often, the response to the media man will be, "Sorry, but we need those funds for ... Why don't you order the programmes next year?"

The names may be different, but the scenario remains the same. Why? Perhaps we would be in a stronger position to prove the value and importance of our media programme if we were held accountable for the contributions we offer. We tend to assume that our media programme does make a real difference in the achievement of students. Unfortunately, there is only limited research to support this assumption, and very little actual assessment has been attempted. The only certainty we can go on is the fact that those who provide the funds, now more than ever before, request proof that media services do make a difference.

In today's school programmes, oriented as they are toward individualisation and freedom to learn, students are encouraged to explore, to be creative, and to seek out answers to their questions. Classrooms, media centres, hallways, and buildings reflect both aesthetic and academic changes in attitudes toward education. Material selection is becoming the province of both faculty and students, and considerable headway is being made in the evaluation and selection of all learning resources. Media programmes, centres, and personnel, however, are still trying to overcome past associations and images in many places. There is no simple solution to this problem, but as professionals, the attainment of such a solution should be one of our highest priorities.

As the United States works to update educational systems, vast resources are being spent for education. Curriculum planners, instructors, administrators, and other educational professionals are being asked to stand

accountable for these expenditures. Whereas many educators may shudder at the word "accountability," media directors can meet this challenge face-to-face and make it work for their benefit as an aid to the programmes and projects they administer.

There are four general areas of media accountability which deserve attention:

1. Justification of purchases.
2. Efficient use of personnel.
3. Measuring of materials against learning gains.
4. Evaluation of media service.

All four are of almost equal importance and merit in-depth consideration. For purposes of this article, however, I will concentrate on the last area since it provides the greatest input capability at the individual school (and sometimes district) level.

Today's students need a variety of materials that will help them understand and interpret reality as they prepare to move into the adult world. No teacher, textbook, or single medium can hope to present all of the information necessary to meet student needs at any one time. Students need answers to their questions when those questions arise -- not at some later date when such answers are conveniently available.

To meet the needs of both the teacher and student, today's media centre has been conceived and developed as a centralized place in which there is available a variety of both print and non-print materials on many different subjects, to meet many different interests, and in accordance with the various skill levels of the various users. Such materials are best made available under the direction of a media specialist, and in a centre that can provide the user with specific materials to meet his/her needs at any given time.

Aside from salaries, the media programme is one of the most expensive elements in today's educational structure. Media specialists who control these programmes must be accountable. In schools with service-oriented media centres/programmes, the media specialist must plan objectives -- both short- and long-range -- that will permit the needs of the faculty and students for materials and services to be met. Such planning also needs to recognise that the media programme must be a viable and integral part of the instructional design which helps students and teachers function effectively.

The programme that provides users with the materials they need, in a format they can use, and at a time when the materials best meet their educational objectives, is a media programme which is effective and accountable. It does not just happen -- it is the result of careful planning.

Performance objectives are central to a viable media programme. Measuring programmes against state and federal standards or guidelines is essential. Like planning, measurement is also a vital factor in media programme accountability.

Media objectives are inseparable from instructional objectives when the media and their use support teaching. Each medium can provide specific kinds of learning opportunities uniquely well. The media staff needs to study the strengths and weaknesses of each medium and determine the kinds of learning situations that each meets best if it is to fulfil the specific learning objectives involved.

As an aid to assessing your own media activities, here is a statement of objectives and activities that can be used to evaluate your own media programme and make it accountable. It can be modified to meet individual circumstances, and can be used to promote the programme provided by a media centre.

In using this document, you should be able to establish a precise statement of accountable services that your media centre provides to all its patrons -- teachers, students, and the community at large. It details not only what services the media centre provides, but also precisely what is done there. Make sure that administrators are aware of the statement's contents -- if necessary, read it to them. Of greatest importance, however, is to let the administrator know that the media centre and its staff want to be held accountable for the services provided. This will get his attention and provide grounds for a hearing when the administrator's active support of the media programme is required.

GOALS, OBJECTIVES, AND ACTIVITIES FOR INSTRUCTIONAL MEDIA PROGRAMMES

goal: To provide a totality of services focused on the best utilization of media that will facilitate, improve, and support the learning process.

Objective 1: The media programme will provide instruction services for students, staff, and community.

activities:

1. Instruct in the use of the media centre.
2. Instruct in the use of materials.
3. Instruct in library usage apart from the media centre.
4. Instruct in production techniques for creating in-house media.
5. Prepare resource units.
6. Assist student teachers assigned to classes within the school(s) to use media in their teaching.
7. Assist in the training of such students in media programmes.
8. Teach students the technical aspects of media centre operation.
9. Compile media collections and bibliographies of media available in the media centre for use in the classroom.
10. Assist students to develop competency in the skills of listening, viewing, and reading, and to develop good habits in these areas.
11. Help students: a) develop good study habits, acquire independence in learning, c) gain skills in the techniques of inquiry and critical evaluation, and d) gain expertise in the handling of media equipment.

12. Provide teachers with information regarding student progress, problems, and achievements as observed in the media centre.
13. Act as a resource person (people) in the classroom when requested by the teacher(s).
14. Serve on teaching teams as needed.
15. Make available to the faculty, using the resources of the professional media collection, information about recent developments in curricular subject areas and in the general field of education.
16. Supply information to teachers by making available in-service workshops, courses, professional meetings, and educational resources within the community.

Objective 2: The media programme will provide consulting services for students, staff, and community.

activities:

1. Provide consultation services for students when they are doing research or media production.
2. Provide consultation services for staff in these same activities.
3. Be available to help plan new courses that will use media.
4. Serve on curriculum and other professionally related committees -- at school, district, regional, and state or national levels.
5. Seek additional outside assistance for curriculum development for the media centre staff.
6. Plan productions that will meet in-school needs.

Objective 3: The media programme will provide reference services for students and staff.

activities:

1. Compile and maintain a community resource file.
2. Know what reference sources are available and provide this knowledge to users.
3. Locate and obtain materials available outside the media centre.
4. Keep up-to-date about current events.
5. Conduct research on utilization of the media centre.
6. Work with students on their projects.
7. Design strategies for utilization of the media collection.
8. Maintain a professional library.

Objective 4: The media programme will provide materials, equipment, and space for materials and personnel.

activities:

1. Preview materials constantly to ensure up-to-date knowledge of what is available.
2. Evaluate new materials in terms of how they can be used by the school community.
3. Provide a check-out system for materials and equipment.
4. Keep equipment in repair: make minor repairs and perform preventive maintenance, and send the equipment out for repairs that cannot be handled in-house.

5. Maintain some form of inventory control for both material and equipment.
6. Know what new equipment is available; keep updated on the state of the media art.
7. Maintain an efficient layout of furniture and a workable traffic pattern within the media centre.
8. Order new materials and equipment.
9. Compile budgets and maintain familiarity with purchasing policies as they relate to the media centre.
10. Provide for efficient scheduling of media centre utilization.
11. Provide processing services for materials.
12. Keep the collection neat, attractively displayed, and readily available.
13. Provide a production work area with the necessary equipment and materials for use by the students and staff.
14. Maintain communications with outside sources for materials.
15. Set up a policy for reserve materials which are not to be checked out.
16. Maintain a methodology for collection of materials offered at no charge.
17. Provide a materials catalogue.
18. Collect pamphlets, clippings, and other information for filing or display, and maintain a bulletin board(s) for the media centre and the teaching staff.

Objective 5: The media programme will oversee the production and circulation of materials and equipment.

activities:

1. Encourage utilization of the media centre at meetings and other professional gatherings.
2. Maintain displays within the school building(s) that advertise media centre acquisitions. activities, services, etc.
3. Maintain active involvement in curriculum activities in the school and/or district.
4. Inform news media of the activities of the school and media centre.
5. Be involved in student organisations.
6. Be available to community groups to explain the functions of the media centre.
7. Maintain as wide a scope of services as possible, both for the school and for the community.
8. Publish reports of available services, materials, and equipment.
9. Be involved in drawing up goals and objectives for school and district programmes.
10. Offer hospitality to students, staff, and members of the community.
11. Maintain cooperative relationships with other agencies in the community.
12. Whenever possible, participate in student and staff activities.
13. Maintain supportive relationships with school and district administrative personnel.
14. Maintain cordial relations with non-instructional personnel.
15. Participate in teacher training via student teacher programmes, and be available to observe and evaluate prospective teachers.

16. Enlist faculty and student assistance in the selection and evaluation of materials.
17. Make the media centre available for meetings when they will not interfere with centre utilization.
18. Participate in school visitation, professional conferences, and professional organisations.

Objective 7: The media program will provide ongoing evaluation of media centre services, collection, and other functions.

activities:

1. Conduct in-school surveys -- both of staff and of students.
2. Periodically have an audit by an outside agency, e.g. a district media service centre.
3. Annually evaluate and update both the print and non-print collections.
4. Evaluate media management procedures on a periodic basis.
5. Evaluate staff performance on an annual basis.
6. Evaluate criteria for job descriptions on a periodic basis.
7. Evaluate services to the media centre from the district level.

There may be points you will wish to add, alter, or omit to serve the needs of your own particular situation, but you now have a tool that you can use when dealing with critics and sceptics or with your most enthusiastic patrons. It is also a tool that can be used for looking inward to assess your own goals and worth.

Accountability, goals, objectives, and activities all lead to an approach to excellence in school media service. That excellence is the result which we all should continually strive to achieve.

PART VII

PERSPECTIVES

33. Freedom and control in higher education
S.S. Richardson

34. The conference in retrospect
J. Powell

INTRODUCTION TO PART VII

The final two reports in this collection are very brief. They were given by two invited speakers, each of whom was asked to comment on the conference theme.

Dr S.S. Richardson spoke informally at the conference dinner and has now kindly provided a summary of his main points. He reminds us that freedom also brings personal and institutional responsibility and that we must be accountable to the society in which we work and teach.

The outgoing president of HERDSA, Dr J. Powell was asked to draw together the many threads of the conference in the concluding session. Rather than attempt the impossible task of referring to each speaker he has drawn attention to just a few features of this conference which impressed him, namely the "attractive mixture" of invited addresses, members' papers and workshops on a single theme; Professor Walker's concern about deterioration of human relationships in academic institutions; the opportunities for active personal involvement presented by the workshops, and the value of the conference in bringing together academics from universities and colleges in six countries.

Summary of after dinner address — Freedom and control in higher education

S.S. Richardson

There is clearly some rethinking in process in Australia on the vexed subject of Institutional Autonomy, the limits of academic freedom in the management of Higher Education and the extent to which governments and the community, employers and professional bodies should be admitted to control of Higher Education. These are arguments which have been won and lost over centuries by universities and colleges in many countries and where the issues are identified as open conflict between the State and institutions of higher learning it must generally be acknowledged that the State has won out in the end, not necessarily by *force majeure* and usually with strong popular support.

One such confrontation of great moment resulted in the Dissolution of Monasteries in England. On Glastonbury Tor, overshadowing the ruins of the great Abbey of Glastonbury, is the spot where the last Abbot, a scholarly man of good intentions, was cruelly hanged, drawn and quartered. He is scarcely remembered at all these days and few people in history have ever suggested that King Henry the Eighth was wrong to liquidate the monasteries and re-establish higher education in a new form in his country because of the abuses which were cleverly exploited by propagandists as reinforcement and justification of the action. A cursillo in Glastonbury over a long weekend could well be regarded as a necessary part of the education of Vice-Chancellors and Principals.

This Conference has presumably discussed at length the desirability from the institutional point of view of a large measure of autonomy in the matter of the government of our institutions, our freedom to express ourselves, to research and to uncover new knowledge and to train our students. There has no doubt also been a debate as to the parameters within which we should exercise such freedoms and autonomies which we have inherited from our predecessors in office or have survived in our negotiations with the government of the day and with those elements in the community who, by and large, pay the piper. In this difficult situation we certainly must be prepared to concede that there may well on occasion be various points of view in opposition which relate to wider freedoms and over-riding our legitimate jurisdictions.

Hartley Coleridge wrote - "But what is <u>freedom</u>" Rightly understood - A universal <u>licence</u> to be <u>good</u>." Milton, a century or more earlier, had a similar thought - "None can love heartily, but <u>good</u> men. The rest love not <u>freedom</u>, but <u>licence</u>."

There have been in the past few months, clear indications that universities and colleges are being subjected by governments, parliaments, the community generally and especially the media, to a public inquisition which is perceived by some as an intrusion upon our autonomy and freedom to manage our affairs. Some of these inquiries are directed

towards establishing that we are still 'good', that we are not abusing our licence, that we are not wasting public money and that the education we are providing is relevant to the needs of the Australian community at this time. Ron Parry put the matter very succinctly to a gathering of College Principals a year or so ago. He said simply that we have been 'rumbled'.

It will win us nothing if we respond to public criticism, questions and executive action by pleading that the questions should not have been put or that actions by government should be rescinded simply because we enjoy certain prescribed autonomies and freedoms. We must demonstrate that we are 'good', responsible and efficient in the exercise of our 'freedoms'. Autonomy is defined either as self-government or, more appropriately in the context of our colleges and universities, as a self-governing community subject in some matters to a higher power, enjoying a practical independence in the management of affairs but always owing, at least, a nominal allegiance to a mother see. And it must not be forgotten that this principle of a self-governing entity which we see as so desirable has now become a rarity in most countries. Most universities and colleges elsewhere in the world have never enjoyed the option of aspiring to such a *modus operandi*.

Some part of the debate in Australia goes back to the fundamental issue of what education is all about. There is current a neo-humanistic idea that education must be free of particular objectives and unrelated to any future career in the community. There is also a contrary view that education should be based on the necessity of a close relationship with production and vocational training. There is the view espoused of the needs of a scientific and technological revolution. This point of view presumably prevailed in the decision to move towards a binary system of higher education in Australia. The Colleges of Advanced Education were certainly not intended to be establishments for humanistic education, but to be pragmatically designed training institutions with the ostensible educational aim of preparing people for vocational or professional employment.

It is in the context of these remarks that I believe that the universities and colleges should be responding to the probings of our affairs by Parliament, the Media and Government. There has been raised questions of public accountability for our good management and our academic activities, the study leave issue, the issues of fees and the Australian Union of Students and the closed shop, the Russian teachers, the supply of teachers and reduction in teacher education, questions relating to accreditation and approval of the 'perks' of Vice-Chancellors and Principals. We must respond calmly and responsibly on these matters if we are to hold on to our hard won autonomy. In short, we must see what we can do to stay 'good'.

The conference in retrospect

J. Powell

The first major conference of the Society was held in Canberra in January 1975 and it took the form of a number of parallel discussion groups examining in depth topics of current interest. Subsequent meetings have experimented with a variety of formats in an attempt to satisfy the diverse interests of our members. This year the conference committee has provided an attractive mixture of presentations by guest speakers, papers by members, and workshops.

Our guest speakers supplied insights into some of the broader aspects of higher education with which most of us have little acquaintance in our day to day work. I was particularly interested in Professor Walker's remarks on the inadequacy of many of the management techniques currently employed in our institutions and his condemnation of the apparent lack of interest in their improvement. The increasing unionization of the academic profession provides some support for his claim that the quality of human relationships in our universities and colleges is being degraded: this is something with which most of us are daily acquainted. The rather tattered remnant of the traditional sense of community is daily becoming more threadbare as we move into a state of increasing confrontation and divisiveness. This will inevitably affect the quality of life in our institutions and have an unpredictable, but almost certainly negative, effect upon teaching and learning.

There were many other papers of great interest, some of which explored the neglected terrain of the political hinterland of teaching, the curriculum and the academic profession. Several others were concerned with aspects of independent learning, a topic which has attracted increasing interest in recent years and which may well feature more prominently in future conferences.

Workshops always have a distinctive feel to them which is quite different from that experienced in the paper sessions. There is a more active interpersonal involvement and a closer engagement with the task in hand. Many of us place a high value upon these workshop activities because they enable us to take away new skills and insights which can be immediately applied in our own work. This year we have been especially fortunate in being able to learn from visitors: George Brown (UK), Brad Imrie (NZ) and Harry Murray (Canada).

There is general agreement that the most valuable feature of any conference is the opportunity it offers to meet informally with colleagues to exchange ideas and information. This has been greatly enriched this year by the participation of a substantial number of visitors from Canada, Thailand and the United States.

HERDSA brings together a remarkably diverse group of people and this is one of its attractions to many of us. As Bill Walker remarked in conversation, one of the things which impressed him here was that people from CAE's and universities were actually talking to each other! What we all have in common is a concern to improve the quality of post-secondary education. In these days of financial constraint and lack of public sympathy this task has become one of near heroic proportions. Enrolments and budgets may decline but the improvement of the quality of education must remain a major commitment for each of us and for the Society. I wish you every success with it between now and when we next meet in Melbourne in 1981.

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